

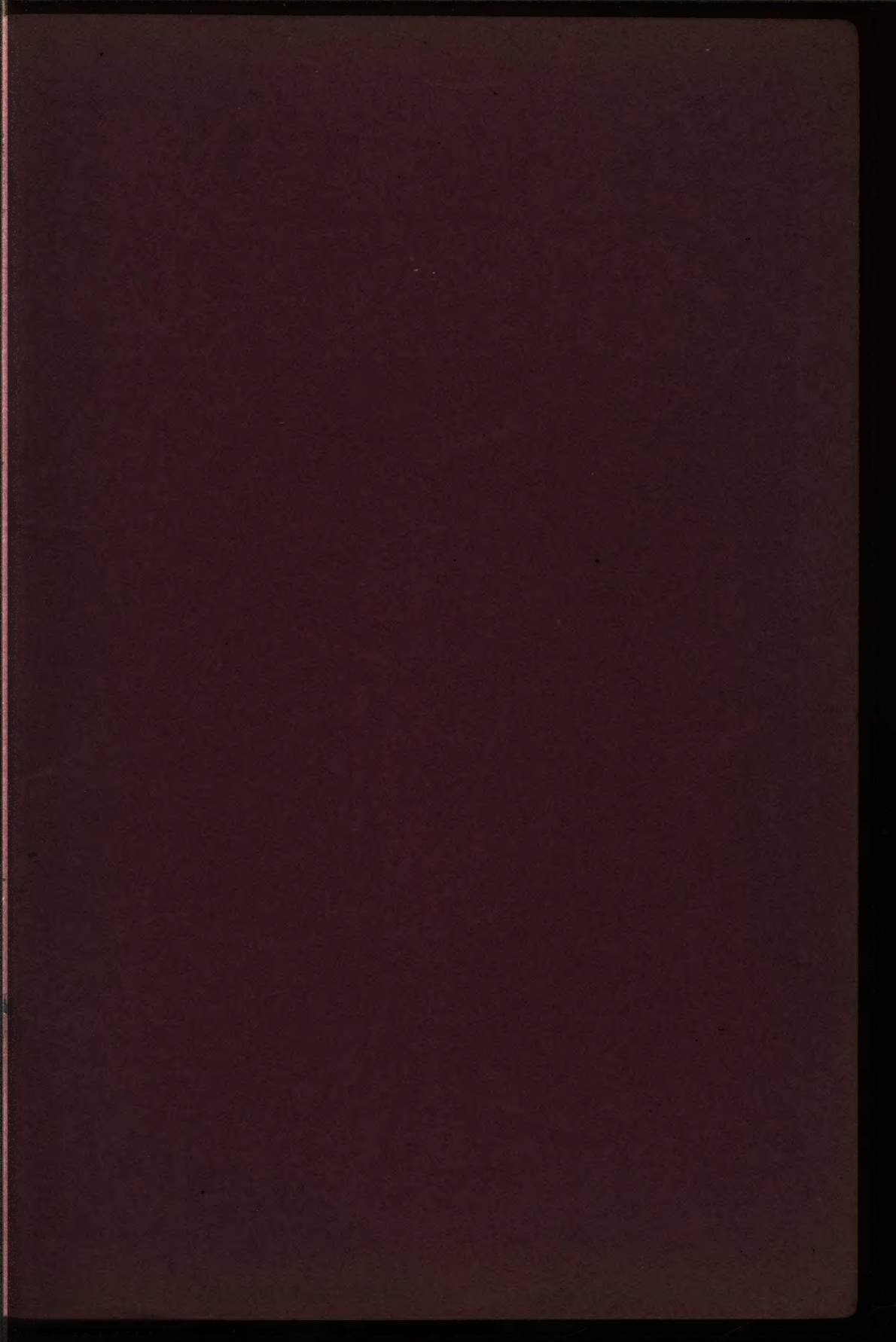
# KEWANEE

XB-42

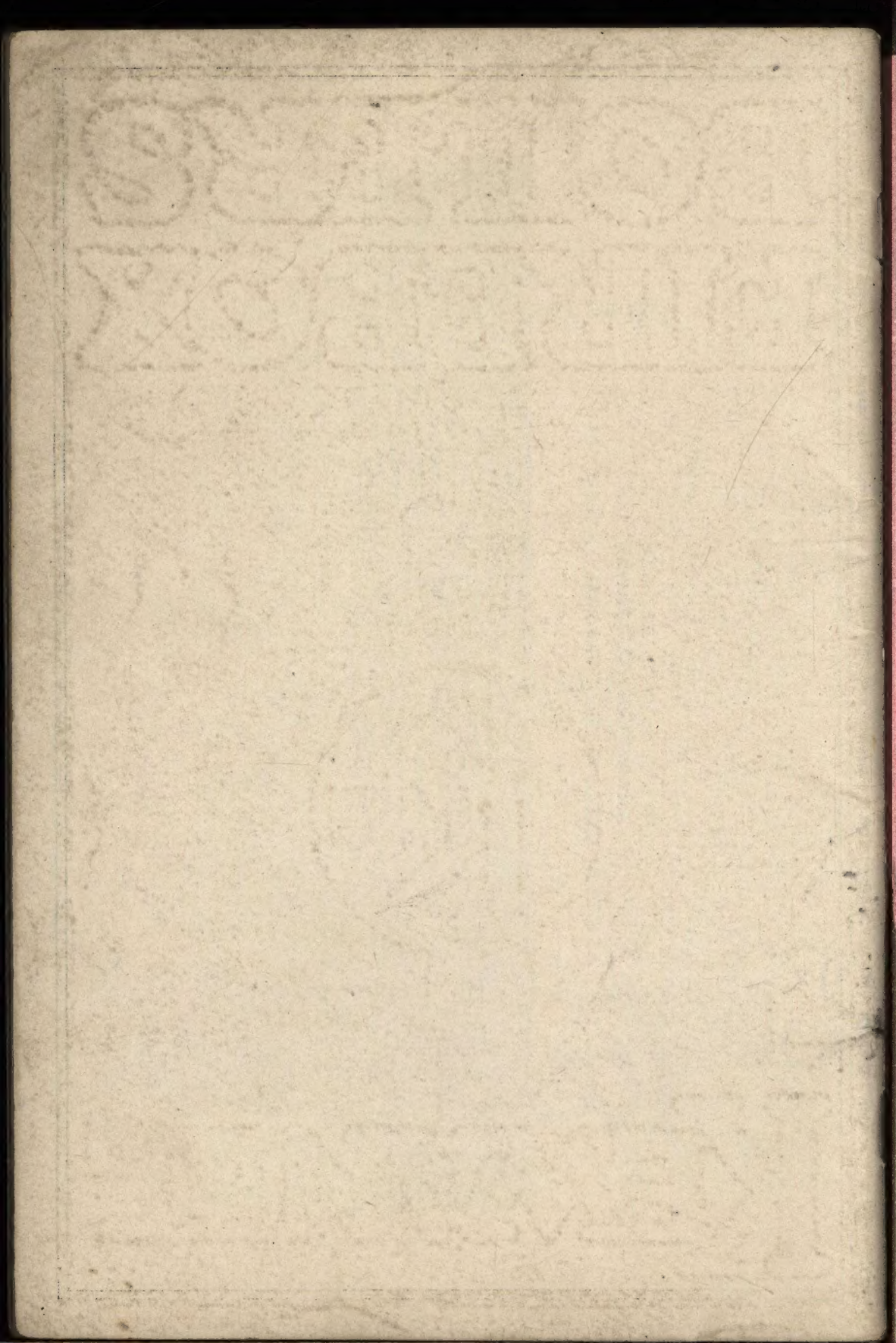


Catalog 78

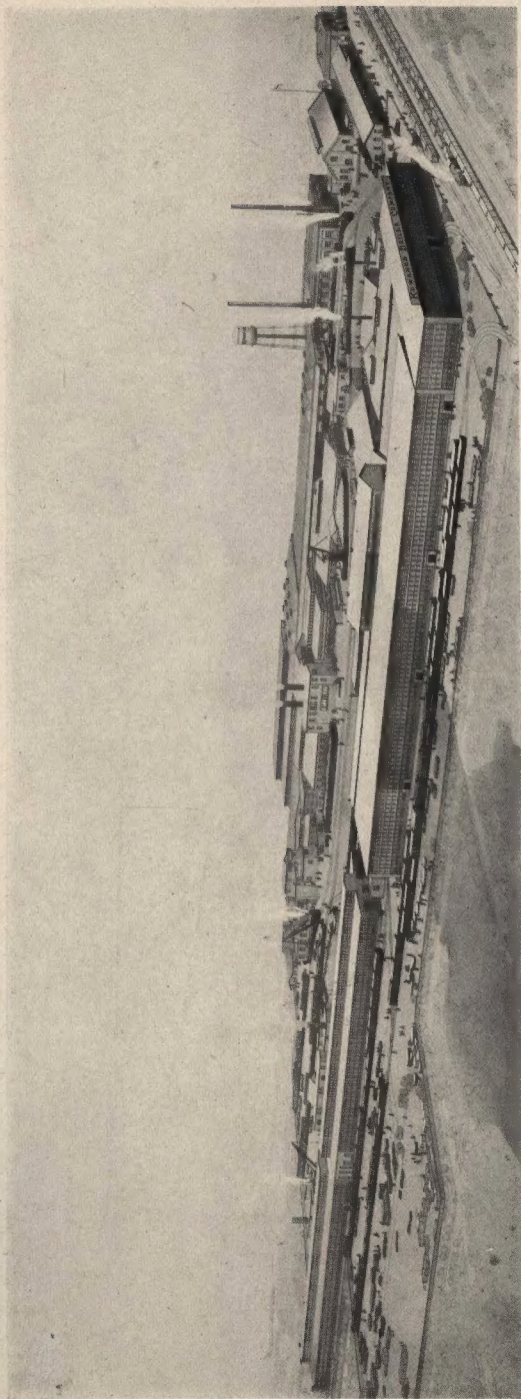
# FIREBOX BOILERS











THE HOME OF **KEWANEE STEEL-RIVETED PRODUCTS**  
**KEWANEE BOILER COMPANY**  
KEWANEE, ILLINOIS, U. S. A.



# KEWANEE

## *Fire-box Boilers*



Catalog No. 78

Separate Catalogs on  
Kewanee Steel Water Heating Garbage Burners,  
Water Heaters and Tanks, Kewanee Power Boilers  
and Kewanee Radiators, Sent on Request

**KEWANEE BOILER COMPANY**  
KEWANEE, ILLINOIS

Branches in all Principal Cities of the  
U. S. and Canada (See page 4)



# KEWANEE BOILER COMPANY

KEWANEE, ILLINOIS

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Printed in the U. S. A.



# All KEWANEE Boilers Are Built of Steel

**K**EWANEE Boilers are built of steel according to the rules of construction adopted by the American Society of Mechanical Engineers, known as the A. S. M. E. code. Every boiler bears the official stamp or symbol of the code, showing the working pressure permitted by the code together with the official stamp of the manufacturer. Seventeen states and a great number of large cities have adopted inspection laws or ordinances requiring A. S. M. E. code construction, and in anticipation of its general adoption all KEWANEE Boilers are so constructed.

In addition to the above, we have embodied in the design and construction of these boilers methods which are not only suggested by modern engineering knowledge but also by the results of thirty-five years of practical experience and study—the use of riveted joints, the staying of flat surfaces, arrangement of tubes with relation to each other and to the boiler shells allowing free circulation, together with ample steam space to insure dry steam and a steady water level; also handhole and manhole plates for cleaning and inspection. In fact every condition and advantage for the safe and economic operation of a power boiler is exemplified in this product.

## Equipment

**T**HE list price on all brick-set boilers includes Century rocking grates, fire-door and frame, ash-pit front with ash door and draft doors, the necessary soot doors, bearing plates with expansion rollers for supporting boilers upon brick pier at rear of boiler shell. Firing tools include hoe, poker, slice bar and tube scraper.

Rear flue clean-out doors are furnished with all smokeless boilers, brick-set type.

With all KEWANEE Smokeless Boilers, brick-set type, we include extra clean-out doors and frames for side or rear walls.

Back arch bars and manhole shield are furnished with all brick-set boilers. Special fire-brick tile, to fit header, is furnished with all smokeless boilers. With portable type boilers we furnish all castings for erecting the boilers as illustrated on pages 18, 19, 26, 27, 36, 37, 44 and 45, including cast-iron ash-pit base for the smaller sizes.

The trimmings for steam boilers are listed separately, consisting of water column with water gauge and three compression gauge cocks; steam gauge with syphon and cock; pop safety valve; and KEWANEE Automatic *Syphon* Draft Regulator with lever, weights, pulleys, chains, and angle valve.

No trimmings of any kind are furnished with water boilers.

Sufficient handholes are provided for cleaning purposes, and in brick-set boilers 42 inches in diameter and larger, and in portable boilers 54 inches and larger, manholes are included.



## *KEWANEE Boilers Are Honestly Rated*

THE rated capacity of KEWANEE Boilers, as printed in this book, is the number of square feet of direct cast-iron radiating surface or equivalent which the boilers will carry, if sufficient radiation is installed to heat the building to the required temperature.

The ratings are based on a standard for steam of two pounds pressure at the boiler, and for water on a mean temperature of 180 degrees Fahrenheit as the water leaves the boiler.

## *The Century Rocking Grate*

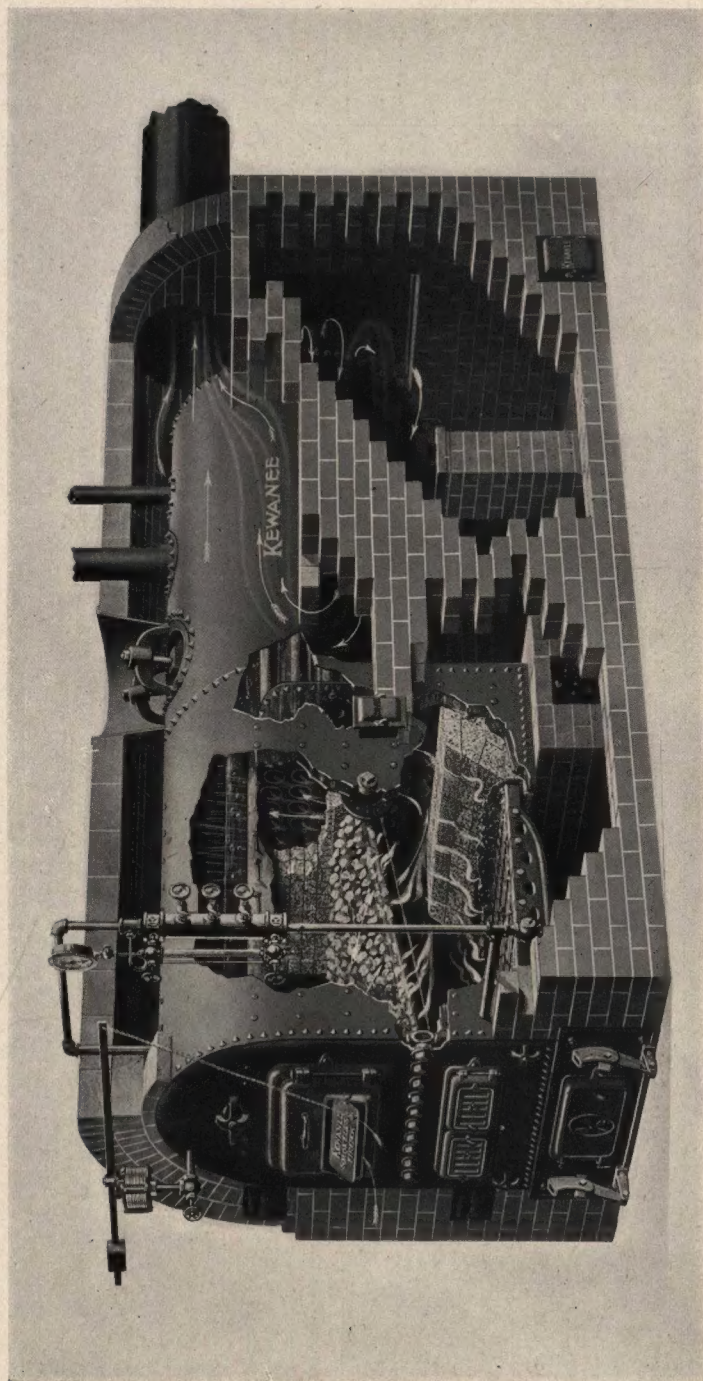
THE Century Rocking Grate is furnished with all KEWANEE Boilers. It is made of the best selected iron, is heavy, strong, and durable, and has an air space of 55 percent, which renders it most efficient.



THE style of grate shown at the left is furnished with boilers sizes 12, 112, 412, 312, and smaller. In those having a fire-box longer than 38 inches, the front half of the grate operates independently of the rear half.

The two-section grate shown at the right is furnished with boilers sizes 13 and larger; sizes 113 and larger in the brick-set smokeless; sizes 413 and larger in the straight draft portable; and sizes 313 and larger in the smokeless portable. Each section is operated independently.





## **KEWANEE SMOKELESS BOILER** — *Brick-set—for Heating*

**S**ECTIONAL view, showing arrangement of double grates and long travel of gases. Recent tests of Kewanee Smokeless Boilers, made by a recognized boiler authority, prove that when burning soft coal, under conditions similar to those prevailing in most large buildings, their efficiency ranges from 73 to 81 percent. The ordinary type heating boiler averages about 60 per cent efficiency.



# Price List **KEWANEE SMOKELESS BOILERS**—Brick-set Type These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Capacity, Steam . . sq. ft.	1600	2000	2300	2600	3100	3600	4000	4700	5500	6500	7500	8500	10000	11500	13000	14000	16000
Capacity, Water . . sq. ft.	2600	3300	3800	4300	5100	5900	6600	7800	9100	10700	12400	14000	16500	19000	21500	23100	26400
Code, Steam Boiler	Heal	Heap	Hear	Heck	Heed	Help	Hern	Hen	Henna	Herd	Herf	Herp	Herg	Hero	Herod	Heron	Hery
Code, Water Boiler	Hide	Hie	Hill	Hind	Hinge	Hint	Hip	Hire	Hisk	Hiss	Hit	Hitch	Hive	Hiz	Hilt	Hing	Hick
List Price for Steam Boilers Maximum Working Pres- sure of 15 Pounds; Also for Water Boilers. Cast- ings and Tools Included	\$835	\$900	\$965	\$1080	\$1155	\$1230	\$1385	\$1510	\$1635	\$1960	\$2175	\$2700	\$2920	\$3350	\$3650	\$4050	\$4350
Extra for Steam Trimmings	\$40	\$40	\$45	\$45	\$45	\$55	\$90	\$90	\$95	\$100	\$115	\$135	\$155	\$165	\$165	\$165	\$200
Approx. Weight, Pounds	4600	5100	5600	6200	6800	7300	8500	9100	9800	12500	13900	16400	18000	20400	22100	23800	25800

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

## **CHIMNEY CAPACITY**

*A correct chimney is absolutely necessary to a boiler. No boiler, no matter how scientifically and carefully constructed, will work properly unless the chimney is the proper size and height. We publish in tables of specifications a set of figures regarding the area and height of chimneys required with Kewanee Boilers of different capacities.*



*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

# **Specifications KEWANEE SMOKELESS BOILERS — Brick-set Type**

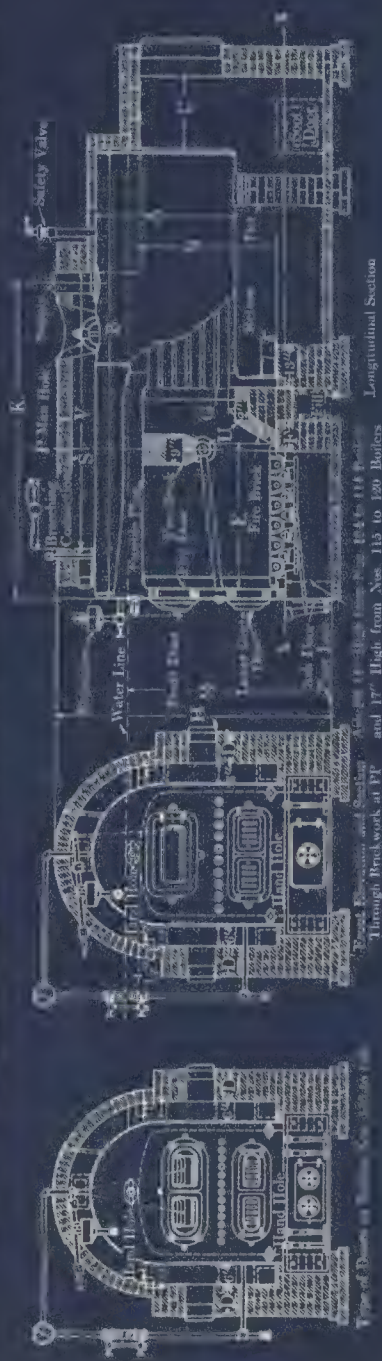
Number of Boiler . . . .	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Diameter of Boiler . . . in.	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length Boiler Over-all ft. in.	8-7	10-2	11-7	9-10	11-4	12-10	12-4	13-10	15-4	15-9	18-3	17-10	20-4	18-4	20-4	18-4	20-4
Width of Fire-box . . . in.	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box . . . in.	45	51	57	54	60	66	66	72	78	78	84	90	96	90	96	96	102
Heating Surface . . sq. ft.	206	243	288	297	345	393	425	480	535	628	741	839	973	1064	1194	1291	1456
Area of Upper Grate sq. ft.	5.9	7.2	8.4	8.6	10.1	11.4	11.8	13.2	15.0	17.1	19.1	21.1	23.3	23.5	25.9	28.5	31.3
Diam. of Breeching . . . in.	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
Diam. of Stack . . . . in.	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Minimum H'g't of Stack ft.	45	45	45	50	50	50	50	55	55	60	60	60	60	70	70	70	70
Diameter of Breeching, Two Boilers . . . . in.	26	26	28	28	30	32	32	34	34	36	38	42	42	44	45	48	50
Diameter of Stack, Two Boilers. . . . . in.	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Minimum Height of Stack, Two Boilers . ft.	55	55	55	60	60	60	60	60	60	70	70	70	75	75	80	80	80
Size of Steam Opening . in.	5	6	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return . . . . in.	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve . in.	2	2½	2½	2½	2½	3	3½	3½	4	4	4½	4½	Two 3½	Two 4	Two 4	Two 4	Two 4½
Height of Water-line . in.	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Height from Floor to Top of Brickwork . . in.	77	77	77	83	83	83	90	90	90	96	96	108	108	114	114	120	120

For setting plans and other measurements see pages 10 and 11.

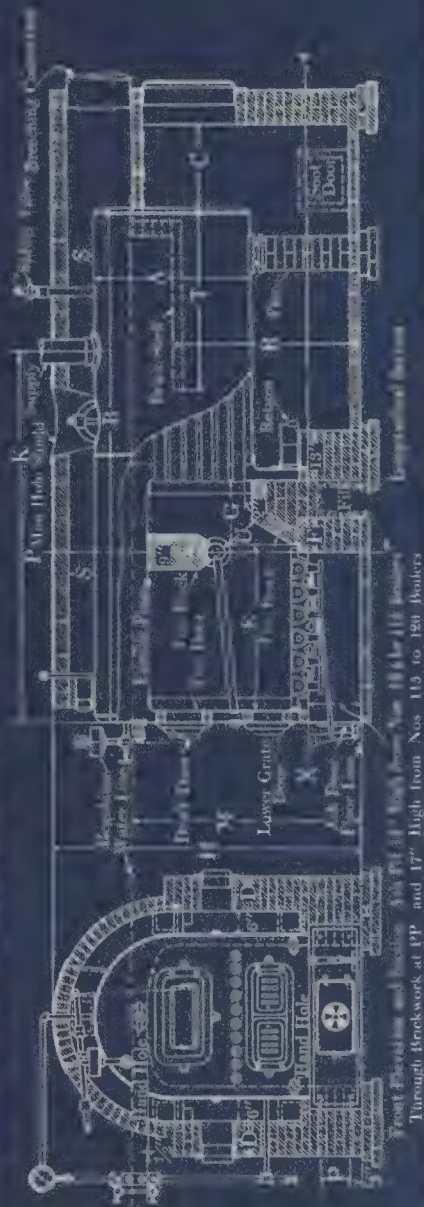
**Every Kewanee Boiler made is built of steel.**



# Section KEWANEE SMOKELESS BOILER - Brick-set - Showing Setting with Stack Connection at Front

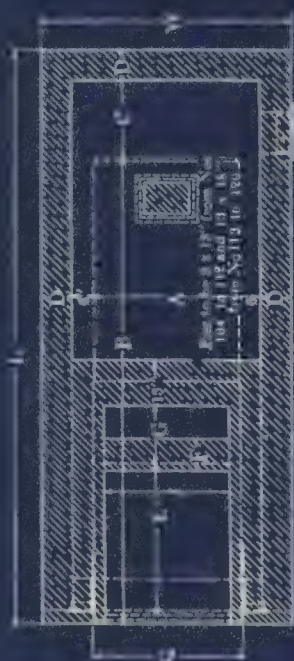


# Section KEWANEE SMOKELESS BOILER - Brick-set - Showing Setting with Stack Connection at Rear

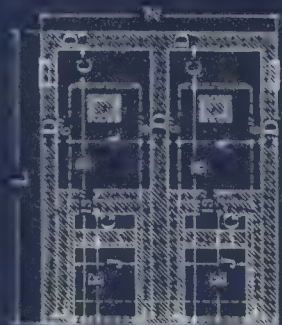


Front Elevation and Section - Nos. 113 to 120 Boilers  
Through Brickwork at PP and 17" High from Nos. 113 to 120 Boilers





Foundation Plan at XX



Double Setting Foundation Plan at XX

Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
A—Diameter Boiler	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
B—Length Boiler	8-7	10-1	11-7	9-10	11-3	12-10	12-4	13-10	15-4	15-9	18-3	17-10	20-4	18-4	20-4	18-4	20-1
C—Rear Spacer	17	17	17	22	22	22	22	22	22	24	24	24	24	24	24	24	24
D—Thickness Wall	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
E—Length Ash-pit	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
F—Thickness Bridge Wall	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
G—Grate to Tube Sheet	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
H—Header to Bridge Wall	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
I—Height Brickwork	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
J—Location Steam Space	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
K—Length Over-all	10-9	12-3	13-9	12-6	13-11	15-5	14-11	16-5	17-11	18-10	21-4	20-11	23-5	21-5	23-5	21-9	23-4
L—Height Water-lugs	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
M—Height Side Floor	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
N—Diam. Breeching Conn.	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
O—Height Brick Shell	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
P—Top Fire Space	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Q—Length Brick Shell	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
V—Length of Arch	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
W—Width Over-all	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Z—Width Double Setting	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Number Common Brick	2900	2550	2450	2600	2850	3100	3700	4000	4300	6000	6600	7300	7900	8300	8300	8700	9300
Number Fire Brick	85	85	85	100	100	100	130	130	130	155	155	215	250	250	310	310	310
Common Brick for Two Boilers	3000	4100	4300	4300	4950	5350	5500	7000	7650	10500	11500	12750	13700	13200	14200	15000	16000

Foundations not included

Key letters N and V apply only to boiler settings with breeching connection at front. Key letters R and T apply only to boiler settings with breeching connection at rear. Key letters P and Q, see pages 16 and 17.



# KEWANEE BOILERS

## *Brick-set Type*

**A**FTER thirty-five continuous years of steel boiler building, KEWANEE Fire-box Boilers are universally recognized as the standard fire-box boilers for low pressure heating purposes. During these years of successful building of steel boilers, building owners, architects and heating contractors are realizing that KEWANEE is the most dependable boiler built for apartments, hotels, club-houses, schools, industrial buildings, in fact, any type of building where a heating boiler must be ready to give service whenever it is called upon.

The KEWANEE Smokeless Boiler is designed and constructed to efficiently burn any kind of coal. Thousands of these boilers are operating and have been for years, being fired with the very poorest grades of coal and causing no smoke whatever. The many splendid installations are proof of the durability of the KEWANEE Smokeless Boiler and the increasing demand we believe is further proof of its ability to burn any kind of coal without causing smoke, and maintain the highest possible heating efficiency.

The Straight Draft Boiler has proven to be exceptionally long-lived, as many of the first which were built thirty-five years ago are still in operation and giving good service.

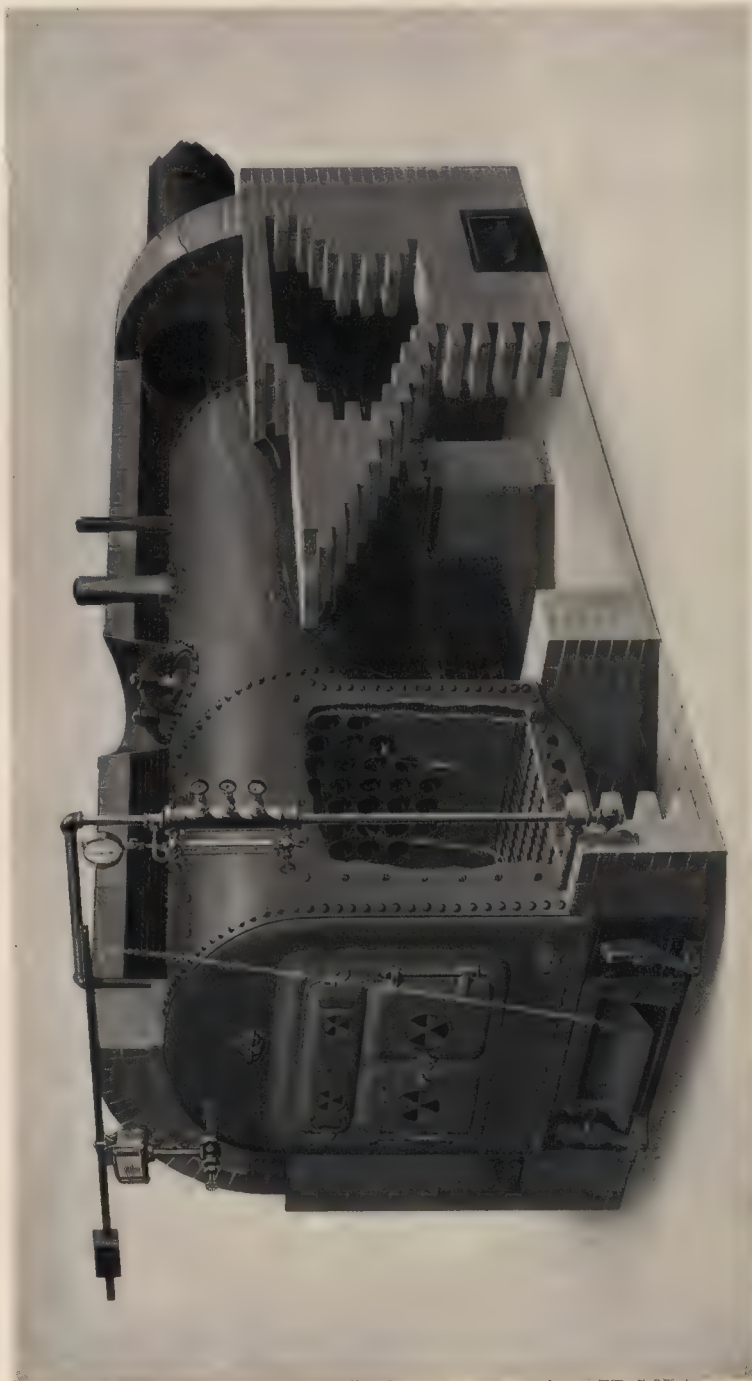
## *Ample Heating Surface*

**T**HE heating surface of a KEWANEE Boiler is that portion of the boiler containing water, against which the fire and gases come in contact. This includes the fire-box of the boiler—which is surrounded by water; the tubes; and the outside surface of the cylinder or shell, below the water-line. So KEWANEE Boilers are practically all heating surface.

## *High Fire-Boxes*

**P**RODUCTS of combustion require room for expansion. KEWANEE Fire-box Boilers have high fire-boxes which allow for the proper burning of the gases.





**KEWANEE BOILER**  
*Brick-set—for Heating*



# Price List **Kewanee Boilers**—Brick-set Type

These Boilers will heat all the radiation shown by their capacity

Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules

Number of Boiler . . . . .	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Capacity, Steam . . . . . sq. ft.	900	1050	1200	1400	1700	2000	2600	3000	3500	4000	4500	5500	6500	7500	8700	10000	11000	12000	14000
Capacity, Water . . . . . sq. ft.	1500	1700	2000	2300	2800	3300	4300	5000	5800	6600	7400	9100	10700	12400	14400	16500	18200	19800	23100
Code, Steam Boiler . . . . .	Dagon	Dalt	Daub	Dawn	Dairy	Damp	Dath	Data	Dated	Dead	Dear	Debat	Defer	Devil	Deist	Delte	Demit	Dense	Dart
Code, Water Boiler . . . . .	Dirty	Defer	Dingy	Durge	Darn	Dehar	Drill	Draft	Dregs	Drink	Debit	Decay	Dusk	Deot	Derry	Deflux	Delta	Demon	Denial
List Price for Steam Boilers Maximum Working Pressure of 15 Pounds; also for Water Boilers, Castings and Tools Included . . . . .	\$445	\$500	\$555	\$610	\$665	\$720	\$900	\$980	\$1050	\$1150	\$1250	\$1570	\$1760	\$2200	\$2425	\$2750	\$3100	\$3400	\$3700
Extra for Steam Trimmings . . . . .	\$35	\$35	\$35	\$35	\$35	\$40	\$40	\$50	\$50	\$80	\$80	\$95	\$95	\$125	\$125	\$150	\$160	\$160	\$160
Rear Flue Clean-out Doors and Frame . . . . .	\$18	\$18	\$18	\$22	\$22	\$22	\$26	\$26	\$32	\$32	\$32	\$38	\$38	\$46	\$46	\$60	\$60	\$70	\$70
Approximate Weight, Pounds . . . . .	2400	2700	2900	3300	3700	4200	5400	6000	6700	7300	8000	10600	11900	14400	16000	17800	19100	21700	23500

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

*Kewanee Boilers can be found heating the best of buildings from New York to San Francisco and from Montreal as far south as heat is required.*



## Specifications KEWANEE BOILERS—Brick-set Type

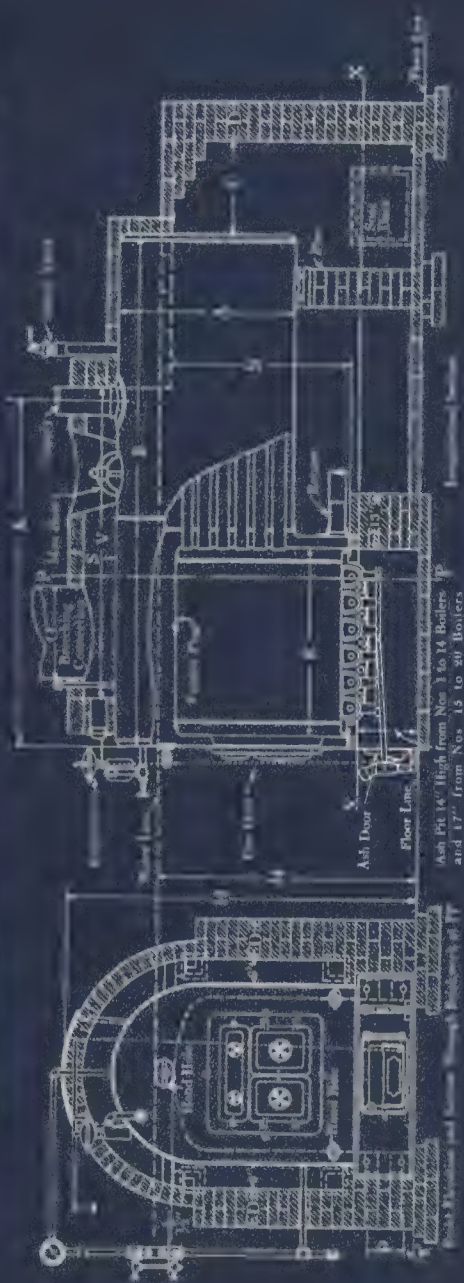
Number of Boiler	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Diameter of Boiler	30 in.	30 7½	30 8½	36 7½	36 9	36 10½	42 10	42 11½	48 10½	48 12	48 13½	54 14	54 16½	60 15½	60 18	66 16	66 18	72 16	72 18
Length of Boiler Over-all	6½ ft.	7½	8½	7½	9	10½	10	11½	10½	12	12	14	16½	15½	18	16	18	16	18
Width of Fire-box	24 in.	24	24	30	30	30	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box	26 in.	32	32	38	38	44	44	50	44	50	56	56	62	62	68	62	68	68	74
Height of Fire-box	35 in.	35	35	38	38	44	41	41	44	44	44	49	49	54	54	59	59	64	64
Heating Surface	113 sq. ft.	131	147	180	215	250	305	350	368	420	472	560	673	743	873	954	1080	1167	1329
Area of Grate	4.4 sq. ft.	5.4	6.4	6.8	8.0	9.3	11.1	12.6	12.9	14.7	16.5	18.8	20.8	22.9	25.1	25.5	28.0	30.8	33.5
Diameter of Breeching	12 in.	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack	12 in.	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Minimum Height of Stack	40 ft.	40	40	40	40	45	45	45	45	50	50	50	50	55	55	60	60	60	60
Diameter of Breeching, Two Boilers	18 in.	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diameter of Stack, Two Boilers	18 in.	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Minimum Height of Stack, Two Boilers	45 ft.	45	45	45	45	45	50	50	50	50	50	55	60	60	70	70	70	70	70
Size of Steam Opening	4 in.	4	5	5	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return	2½ in.	2½	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve	1½ in.	2	2	2	2	2½	2½	3	3	3½	3½	4	4	4½	4½	4½	4	4	4
Height of Water-line	52 in.	52	52	55	55	55	58	58	61	61	61	66	66	75	75	80	80	85	85
Height from Floor to Top of Brick Work	70 in.	70	70	77	77	77	83	83	90	90	90	96	96	108	108	114	114	120	120

For setting plans and other measurements see pages 16 and 17.

*Many of the first Kewanee Boilers made are still on the job—35 years old.*



# Section KEWANEE BOILER — Brick-set — Showing Setting with Stack Connection at Front



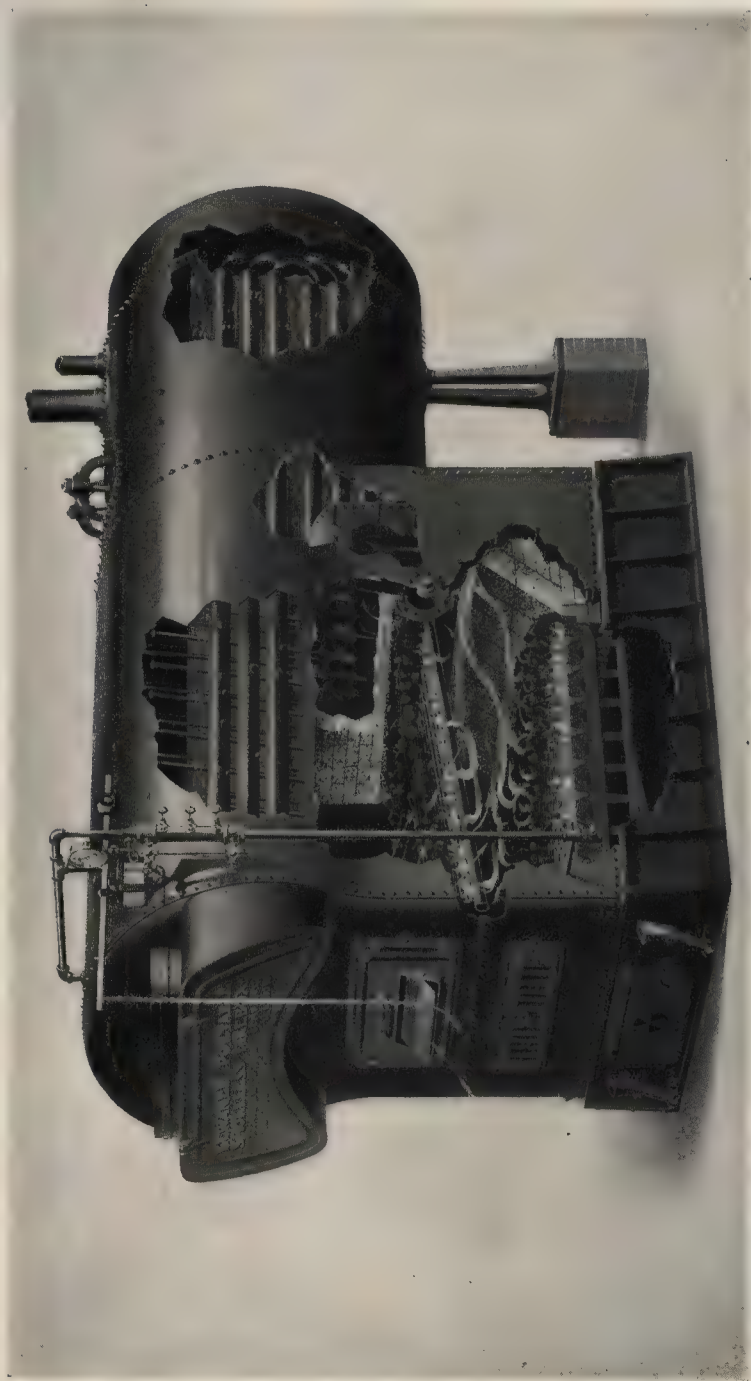
Double Setting Foundation Plan at XX

Foundation Plan at XX



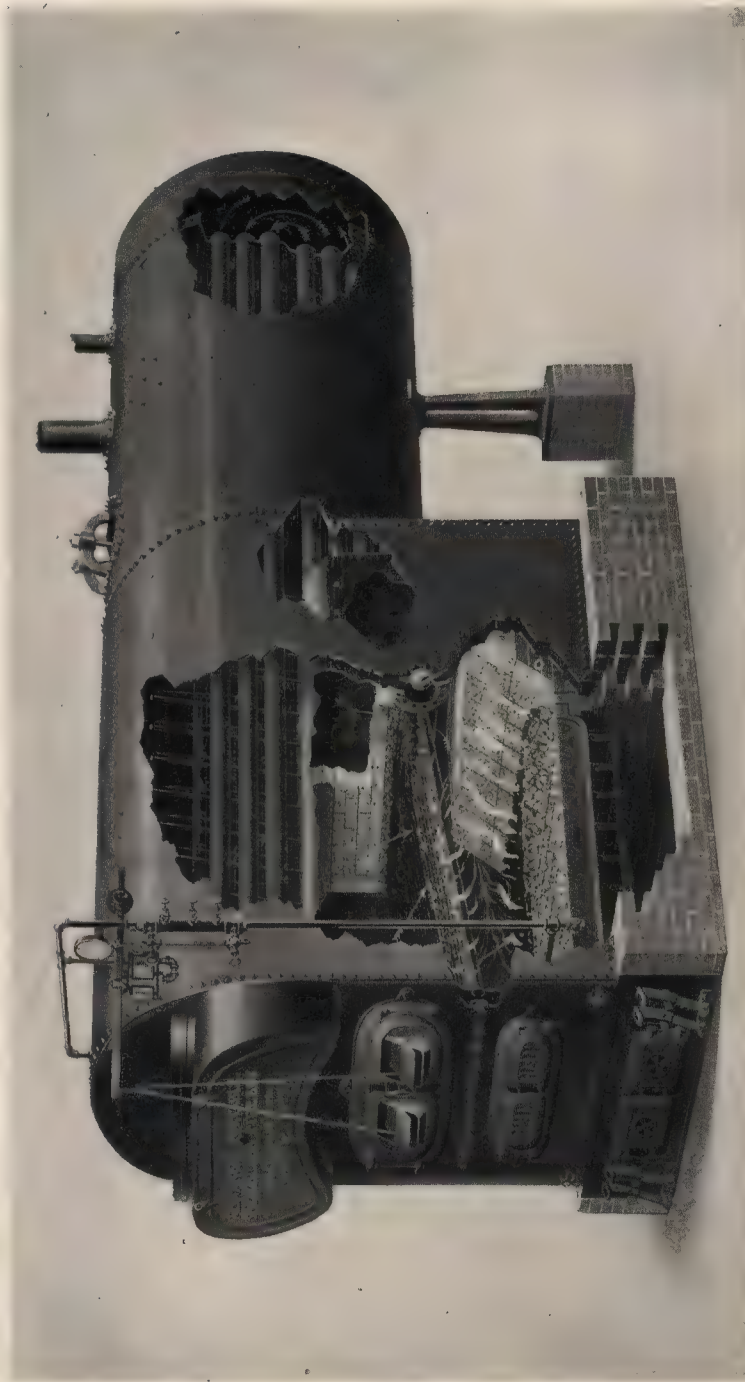






**KEWANEE SMOKELESS  
Boiler—Portable—for Heating**

**B**OILER No. 314 (and smaller) constructed with enlarged cylinder as above. Iron ash-pit (as illustrated) furnished with Boiler No. 309 (and smaller). Actual installations have proved conclusively that KEWANEE Smokeless Boilers cut coal costs from 21 to 35 percent.



**KEWANEE SMOKELESS  
BOILER**—*Portable—for Heating*

**B**OILER NO. 315 (and larger) constructed as shown above. Boiler No. 310 (and larger) set on brick foundation as illustrated.



# Price List **KEWANEE SMOKELESS BOILERS** — Portable Type These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
Capacity, Steam	3000	3500	4000	4500	5000	5500	6000	6500	7500	8500	10000	12000	14000	16000	18000	20000	25000	30000
Capacity, Water	5000	5800	6600	7400	8300	9100	9900	10700	12400	14000	16500	19800	23100	26400	29700	33000	40000	48000
Code, Steam Boiler	Panel	Panic	Pansy	Papa	Paper	Parch	Pail	Parcel	Pardon	Park	Parole	Party	Pastry	Patrol	Pawn	Pay	Pause	Pave
Code, Water Boiler	Palt	Penal	Pencil	Pen	Pepain	Perch	Perfect	Peril	Period	Perish	Permit	Pesque	Person	Peruse	Petal	Pettle	Petty	Powder
List Price for Steam Boilers Maximum Working Pressure of 15 Pounds; Also for Water Boiler, Castings and Tools Included	\$1410	\$1530	\$1650	\$1850	\$1965	\$2080	\$2520	\$2730	\$3070	\$3270	\$3850	\$4080	\$4500	\$4800	\$5450	\$5800	\$7400	\$8400
Extra for Steam Trimmings	\$55	\$55	\$90	\$95	\$95	\$100	\$110	\$110	\$130	\$130	\$160	\$170	\$170	\$200	\$225	\$225	\$235	\$235
Approximate Weight, Pounds	7800	8600	9300	10400	11100	11900	14500	15300	16900	17800	20900	22900	25000	26500	28800	30000	37000	43000

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

*Scientific tests, as well as actual installations, have proved conclusively  
that Kewanee Smokeless Boilers get from 21 to 35 percent more heat  
from the same amount of soft coal than ordinary boilers.*

# Specifications KEWANEE SMOKELESS BOILERS—Portable Type

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
Diameter of Boiler	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78	84	84
Length of Boiler Over-all	9-1	10-5	11-5	10-11	11-11	12-11	12-11	13-11	15-3	16-3	15-9	17-9	16-7	17-11	18-10	20-1	20-1	24-1
Width of Fire-box	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71	77	77
Length of Fire-box	54	60	66	72	78	84	78	84	90	96	90	96	96	102	108	114	120	120
Heating Surface	297	352	391	446	496	546	592	643	721	773	912	1053	1204	1316	1458	1549	2074	2629
Area of Upper Grate	8.8	10.1	11.4	12.9	14.7	16.5	17.1	18.5	20.0	21.4	23.5	25.9	28.5	29.9	32.6	34.6	41.7	44.8
Diameter of Breeching	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34	38	40
Minimum Height of Stack	50	55	55	55	55	60	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	56	56	56
Diameter of Stack, Two Boilers	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers	60	65	65	65	65	70	70	70	75	75	75	80	80	80	90	100	100	110
Size of Steam Opening	6	6	6	6	6	6	7	7	7	7	8	8	8	8	8	8	10	10
Size of Return	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve	3	3	3 1/2	3 1/2	3 1/2	4	4	4	4 1/2	4 1/2	4 1/2	4	4	4 1/2	4	4	4 1/2	4 1/2
Height of Water-line	71	71	71	76	76	76	83	83	87	87	90	90	96	96	97	105	105	105
Height Floor to Top of Shell	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	121	121	121
Distance Required to Open Rear Flue Doors	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40	43	43

For setting plans and other measurements see pages 22, 23, 24 and 25.

**Kewanee Boilers never crack, for they are built of steel.**





Section KEWEEWAW SMOKELESS BOILER  
Showing Portable Type  
Setting Plan

Note: Boilers Nos. 310, 311, 312, 313, and 314 are constructed with bell top as shown above, but are set on brick foundation instead of cast iron base as shown.



Setting Plan at A-X

# Setting Measurements KEWANEE SMOKELESS BOILER — Portable Type

Number of Boiler	307	308	309*	310	311	312	313	314
A—Diameter Boiler	48	48	48	54	54	54	60	60
B—Length Boiler	9-11	10-6	11-2	12-4	11-11	11-11	12-11	13-11
E—Length Grate	37	43	49	49	55	61	55	61
C—Header to Bridge Wall	9	10	11 1/2	11	12 1/2	14	12 1/2	14
D—Length Ash-pit	38	44	50	50	56	62	56	62
F—T Thickness Bridge Wall	9	9	9	13	13	13	13	13
G—Bridge Wall to Rear Wall	29	39	45	12	12	12	12	12
K—Ash-pit to Pier								
K—Rear Wall to Pier	37	37	37	27	33	39	45	51
J—Width Ash-pit	46	46	46	43	43	43	49	49
M—Width Foundation	61	67	73	84	90	96	66	66
L—Length Base	84	84	84	89	89	89	90	96
H—Height Boiler	85	85	85	90	90	90	98	98
U—Height Supply	19	19	19	19	19	19	20	20
V—Height of Return	71	71	71	76	76	76	83	83
R—Height Water-line	76	76	76	80	80	80	88	88
N—Height of Breeching Connection	5-11	6-8	7-3	7-6	8-2	8-9	9-3	9-3
O—Location Supply	12	14	14	13	13	15	15	18
P—Location Safety Valve				8	8	8	8	8
Q—Anchor Bolt Centers for Ash-pit Front	8	8	8	8	8	8	9 1/2	9 1/2
W—Center Breeching Connection to Front of Boiler	10	10	10	10	10	10	12 1/2	12 1/2
S—Width Breeching Connection	36	36	36	42	42	42	46	46
T—Length Breeching Connection				48	48	48	54	54
Y—Anchor Bolt Centers for Ash-pit Front								
*Number Common Brick	200	200	200	800	825	850	1025	1050
Number Fire-brick	115	115	115	155	155	155	195	195
Number Supply to the Grate	148	157	173	184	212	233	255	265

\*Foundations not included

†For key letters F and G, Q and Y see setting plan on page 24.

*Kewanee Smokeless Boilers will burn any grade of soft coal smokelessly.*



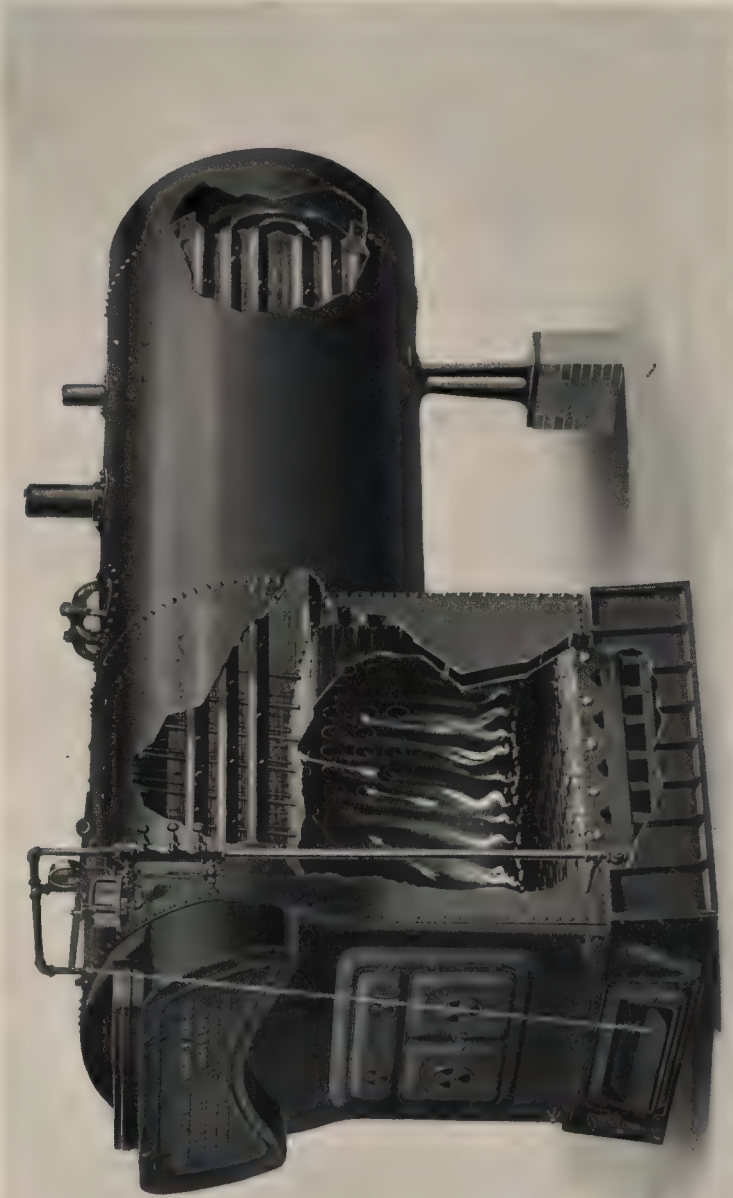


# Setting and Foundation Measurements KEWANEE SMOKELESS BOILER — Portable Type

Number of Boiler	315	316	317	318	319	320	321	322	323
A—Diameter of Boiler	60	60	66	66	72	72	78	78	84
B—Length of Boiler	15-9	16-3	15-9	15-9	16-7	17-11	17-10	18-10	20-1
C—Length of Grate	61	67	61	67	67	73	73	73	79
D—Height to Bridge Wall	14	15	15	16	16	17	17	18	19
E—Length Ash-pit	63	63	63	68	69	75	75	75	81
F—Firebrick Bridge Wall	18	18	18	18	18	18	18	18	18
G—Bridge Wall to Rear Wall	13	13	13	13	13	13	13	13	13
H—Rear Wall to Pier	47	63	63	85	83	84	72	73	81
I—Width Ash-pit	63	63	63	68	68	71	71	71	77
M—Width Foundation	79	79	85	85	91	91	97	97	103
N—Length Foundation	165	165	167	112	113	119	119	125	131
O—Height of Base	101	101	107	107	113	115	115	115	121
U—Height Supply	103	103	107	107	113	115	117	117	123
V—Height to Top of Foundation	91	93	93	93	100	100	101	101	109
W—Height to Top of Foundation	87	87	93	93	96	97	97	97	101
O—Location Supply	11-11	11-10	11-10	11-9	11-7	12-2	12-2	12-9	13-0
P—Location Safety Valve	11	11	11	11	11	11	11	11	11
Q—Anchor Bolt Centers for Ash-pit Front	11	11	11	11	11	11	11	11	11
R—Center of Grate to Front of Boiler	34	34	34	34	34	34	34	34	34
S—Width of Grate	100	100	100	100	100	100	100	100	100
T—Length of Grate	10	10	10	10	10	10	10	10	10
V—Anchor Bolt Centers for Ash-pit Front	61	61	61	61	61	61	61	61	61
W—Width of Grate	100	100	100	100	100	100	100	100	100
Number Fire Brick	210	215	240	240	255	255	270	270	285
Outside Surface to be Covered	266	280	280	330	330	330	330	330	330

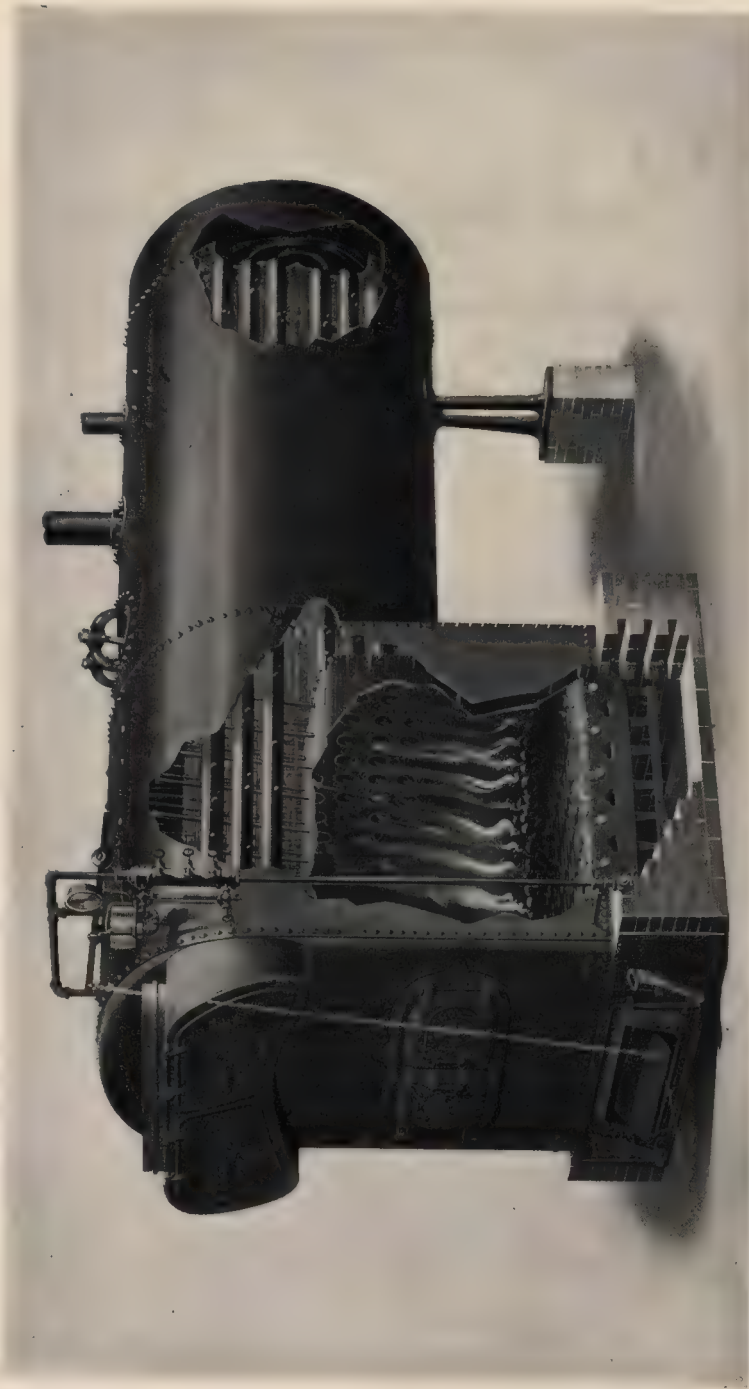
\*Foundations not included.





**KEWANEE BOILER**  
*Portable—for Heating*

**B**OILER No. 414 (and smaller) made with enlarged cylinder as shown above.  
Iron ash-pits (as illustrated) furnished with Boiler No. 409 (and smaller).



**KEWANEE BOILER**  
*Portable—for Heating*

**B**OILER No. 415 (and larger) made as shown above. Boiler No. 410 (and larger) set on brick foundation as illustrated.



# Price List KEWANEE BOILERS—Portable Type

These Boilers will heat all the radiation shown by their capacity

Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules

Number of Boiler	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424
Capacity, Steam	2500	2900	3500	4000	4500	5000	5500	6000	7000	8000	9500	11000	13000	15000	17500	20000	25000	28000
Capacity, Water	4100	4800	5800	6600	7400	8300	9100	9900	11600	13200	15700	18200	21500	24800	28500	32000	40000	45000
Code, Steam Boiler	Pipe	Plaid	Plank	Plat	Plasa	Plead	Place	Plod	Plain	Plunge	Plush	Poot	Point	Polar	Planet	Pledge	Pluck	Plump
Code, Water Boiler	Prime	Prince	Print	Prism	Proud	Prone	Proxy	Psalm	Pulp	Punch	Pulse	Pure	Purge	Pyre	Fride	Prank	Puff	Pun
List Price for Steam Boilers Maximum Working Pressure of 15 Pounds; Also for Water Boiler Castings and Tools Included	\$1115	\$1200	\$1320	\$1485	\$1595	\$1705	\$2100	\$2300	\$2650	\$2850	\$3400	\$3640	\$4100	\$4400	\$5300	\$5780	\$6870	\$7370
Extra for Steam Trimmings	\$40	\$45	\$45	\$85	\$85	\$85	\$105	\$105	\$105	\$125	\$150	\$160	\$200	\$200	\$220	\$220	\$230	
Approximate Weight, Pounds	6900	7400	8300	9000	9800	10600	13200	14100	15900	17300	20400	22000	24000	25700	28000	31000	37000	40000

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

*Kewanee Boilers go into the building in one piece. Every joint and seam is firmly riveted at the factory by men who do nothing else and have done nothing else for years and years.*

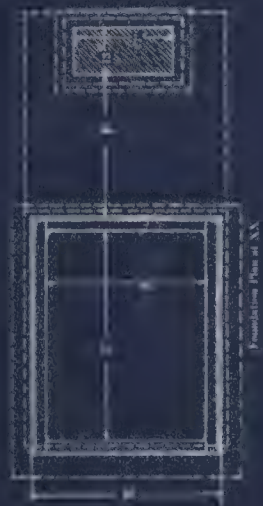
# Specifications KEWANEE BOILERS—Portable Type

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

Number of Boiler . . . . .	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424
Diameter of Boiler . . . . . in.	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78	84	84
Length of Boiler . . . . . ft. in.	8-7	9-6	11-1	10-0	11-1	12-1	12-5	13-7	14-4	16-2	15-9	17-4	15-11	17-6	17-11	19-11	20-1	22-1
Width of Fire-box . . . . . in.	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71	77	77
Length of Fire-box . . . . . in.	38	44	50	44	50	56	56	62	56	62	62	68	74	74	80	80	86	86
Height of Fire-box . . . . . in.	41½	41½	41½	44	44	44	49	49	49	49	52	52	54½	54½	55	55	58	58
Heating Surface . . . . . sq. ft.	278	310	373	416	465	515	565	626	676	778	929	1040	1168	1303	1514	1711	2209	2427
Area of Grate . . . . . sq. ft.	9.6	11.1	12.6	12.9	14.7	16.5	18.8	20.8	20.7	22.9	25.5	28.0	30.8	33.5	36.6	39.6	42.9	46.1
Diameter of Breeching . . . . . in.	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack . . . . . in.	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34	38	40
Minimum Height of Stack . . . . . ft.	50	50	55	55	55	60	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers . . . . . in.	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	52	56	56
Diameter of Stack, Two Boilers . . . . . in.	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers . . . . . ft.	60	60	65	65	65	70	70	70	75	75	75	80	80	80	90	100	100	110
Size of Steam Opening . . . . . in.	6	6	6	6	6	6	7	7	7	7	8	8	8	8	8	8	10	10
Size of Return . . . . . in.	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve . . . . . in.	2½	3	3	3½	3½	3½	4	4	4	4½	Two 3½	Two 4	Two 4½	Two 4½	Two 4½	Three 4	Three 4½	Four 4
Height of Water-line . . . . . in.	71	71	71	76	76	76	83	83	87	87	90	90	96	96	97	97	105	105
Height Floor to Top of Shell . . . . . in.	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	115	121	121
Distance Required to Open Rear Flue Doors . . . in.	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40	43	43

*More than 500 U. S. postoffice buildings are heated with Kewanee Boilers.*





### Section KEWANEE BOILER—Showing Portable Type Setting Plan

Note: Boilers Nos. 410, 411, 412, 413, and 414 are constructed with bell top as illustrated above but are set on brick base instead of cast iron ash-pit.

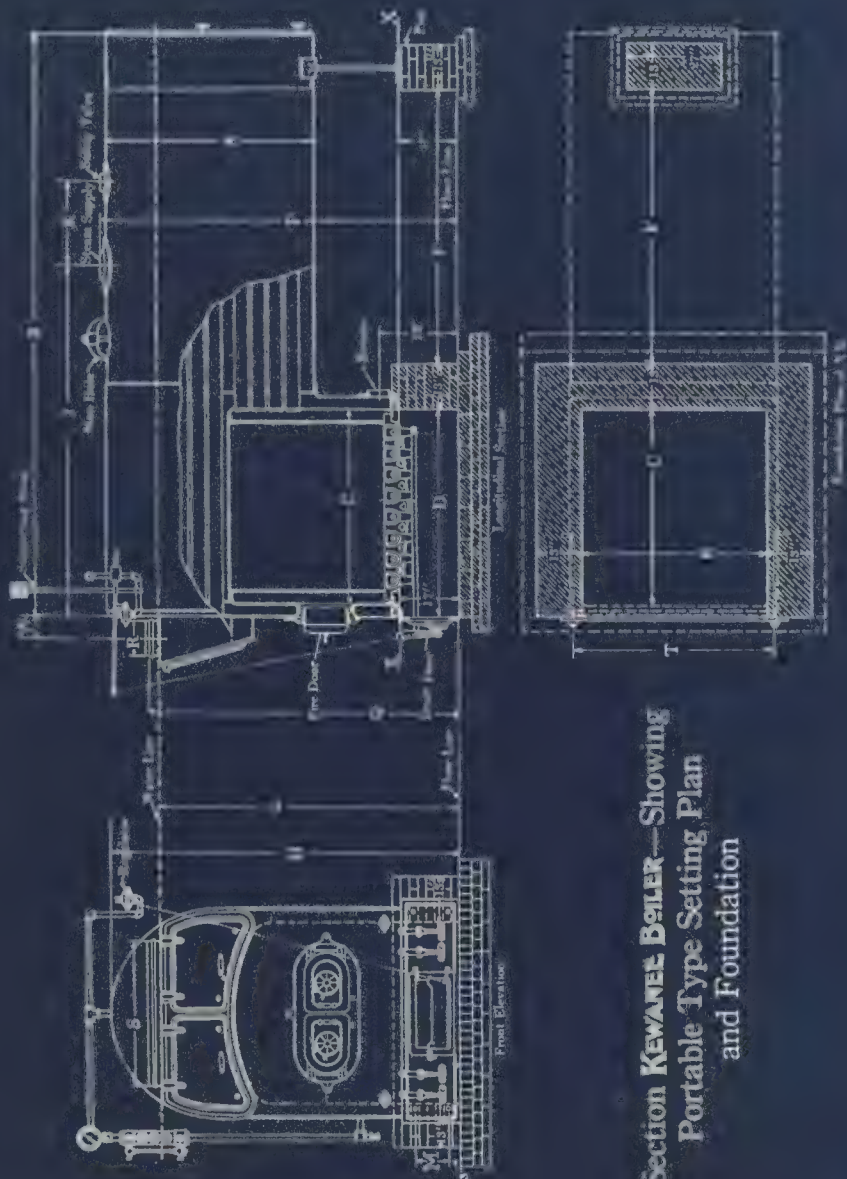
# Setting Measurements KEWANEE BOILER—Portable Type

Number of Boiler	407	408	409	410	411	412	413	414
A—Diameter of Boiler	45	48	48	34	34	34	34	30
B—Length of Boiler	6-7	9-0	11-1	10-0	11-1	12-1	12-5	13-7
C—Length of Fire-box	39	44	52	44	50	50	50	62
D—Length of Ash-pit	40	51	52					
E—Width of Ash-pit Base	45	45	45					
F—Width of Fire-box	38	38	36					
G—Ash-pit Base to Pier	3-3	3-3	4-0					
H—Height of Steam Supply	70	70	76	36	30	30	30	35
I—Height of Return	84	84	84	89	89	89	89	98
J—Location of Steam Supply	85	85	85	90	90	90	90	90
K—Location of Safety Valve	19	19	19	19	19	19	20	20
L—Height of Water line	71	71	71	76	76	76	81	85
M—Center of Breaching Connection to Front of Boiler	8-4	8-4	8-3	3-6	6-1	6-6	6-3	8-3
N—Width of Breaching Connection	13	14	18	16	18	13	16	16
O—Length of Breaching Connection	8	8	8	8	8	8	10 1/2	10 1/2
P—Length of Breaching Connection	10	10	10	10	10	10	12 1/2	12 1/2
Q—Length of Breaching Connection	36	36	36	42	42	42	46	46
R—Outside Surface to be Covered	70	70	70	40	40	40	30	30
S—Length of Ash-pit	11 1/2	13 1/2	15 1/2	15 1/2	17 1/2	18 1/2	19 1/2	23 1/2
T—Width of Ash-pit	47	47	47	47	51	51	51	51
U—Ash-pit Wall to Pier	43	43	43	43	43	43	46	49
V—Center to Center Anch. Bolts	3-9	3-9	4-1	4-1	4-1	4-10	4-3	4-10
W—Center to Center Anch. Bolts	8	8	8	8	8	8	8	8
X—Center to Center Anch. Bolts	48	48	48	48	48	48	51	54

\*Foundations not included

†These dimensions include the 27" and 14" and 10" tank base. The key bolts are setting (4) in from 27"





Section KEWANEE BOILER—Showing  
Portable Type Setting Plan  
and Foundation

# Setting and Foundation Measurements Kewanee Boiler—Portable Type

Number of Boiler . . . . .	415	416	417	418	419	420	421	422	423	424
A—Diameter of Boiler	66	60	66	66	72	72	78	78	84	84
B—Length of Boiler	11-4	16-2	15-9	17-4	15-11	17-6	17-11	19-11	20-1	20-1
C—Length of Fire-box	56	62	62	68	68	74	74	80	80	80
D—Length of Ash-pit	60	66	66	72	72	76	78	84	84	84
E—Width of Ash-pit	53	53	53	53	66	65	71	71	77	77
F—Ash-pit Wall to Pier	7-7	7-11	7-5	8-3	6-11	7-11	8-4	9-10	9-10	11-4
H—Height of Boiler	164	160	167	167	143	119	115	115	121	121
P—Height of Steam Supply	163	163	169	169	115	115	117	117	123	123
Q—Height of Breeching Connection	90	90	93	93	100	100	101	104	109	109
L—Height of Water-line	87	87	90	90	96	96	97	97	105	105
J—Location Steam Supply	9-2	9-2	9-4	10-7	8-6	11-1	11-3	12-0	12-6	12-8
K—Location Safety Valve	21	27	18	36	18	34	21	30	24	23
W—Center of Breeching Connection to Front of Boiler	104	104	104	104	114	115	114	114	118	118
R—Width of Breeching Connection	12-3	12-3	15	16	17	17	17	17	20	20
S—Length of Breeching Connection	46	46	50	50	54	54	60	60	64	64
M—Center to Center of Anchor Bolts	11	11	11	11	11	11	11	11	11	11
T—Center to Center of Anchor Bolts	63	60	66	66	72	72	78	78	84	84
*Number of Common Brick	140	110	140	160	100	80	80	105	100	105
Outside Surface to be Covered	150	90	150	150	315	245	345	425	465	505

\*Foundation not included.



*There is a*

# KEWANEE

Boiler just the right size for every building from the two apartment building, small school, garage, etc., up to the largest hotel, club, business block, factory, school, church—in fact every type of big building.



## KEWANEE

### *Type K Portable Boiler for Smaller Buildings*

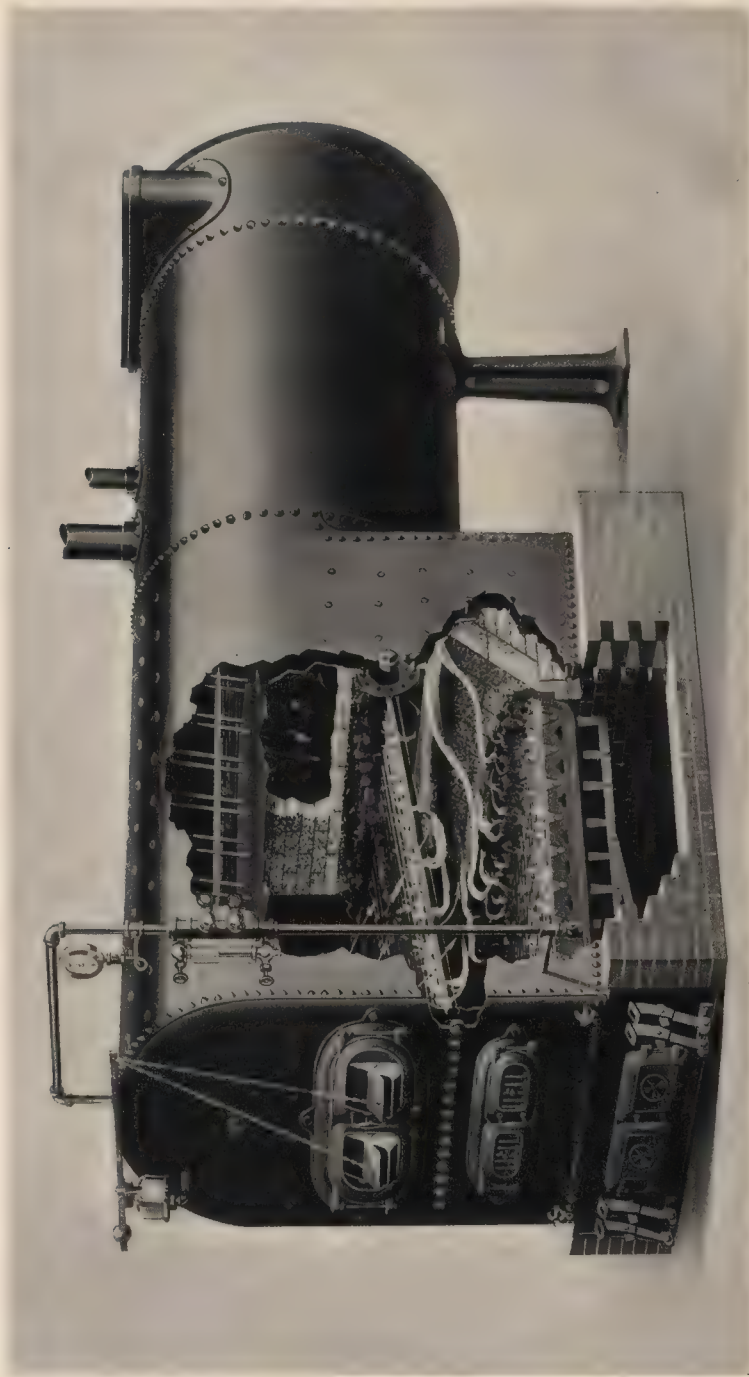
WHILE KEWANEE Steel Fire-box Boilers are usually selected by architects and those having to do with the choosing of the heating boiler in the larger buildings, the fact that the Kewanee Boiler Company makes a portable boiler for the 2- 3- and 4-apartment building or any other building requiring small fire-box boiler does not want to be overlooked. The Type K KEWANEE is constructed along the same lines that the larger KEWANEE Boilers are built and it is made in both the smokeless and straight-draft type. The smokeless boiler in this type has a rated capacity of from 1500 to 15,200 square feet in steam and from 2400 to 25,000 square feet in water. The straight-draft boiler has a steam capacity capable of heating from 850 to 13,300 square feet and from 1400 to 21,090 square feet hot water capacity. They will carry all of their rated capacity.





112K and smaller

**Kewanee** Portable Smokeless  
Type K Boiler—Cast-Iron Base



**KEWANEE** Portable Smokeless  
Type K Boiler—Brick Base

113K and larger



# Price List **KEWANEE** Portable Smokeless Boilers Type K These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	104K	105K	106K	107K	108K	109K	110K	111K	112K	113K	114K	115K	116K	117K	118K	119K	120K
Capacity, Steam . . . sq. ft.	1500	1900	2200	2500	2900	3400	3800	4400	5200	6200	7100	8100	9500	10900	12300	13300	15200
Capacity, Water . . . sq. ft.	2450	3100	3600	4100	4800	5600	6300	7400	8600	10100	11800	13300	15700	18000	20400	21900	25000
Code, Steam Boiler . . .	Habit	Hack	Hades	Hail	Hair	Hale	Half	Hall	Halo	Halt	Ham	Hand	Hank	Hapy	Hard	Hash	Hate
Code, Water Boiler . . .	Hobo	Hock	Hod	Hoe	Hog	Hold	Hole	Holy	Home	Honey	Honor	Hood	Hope	Horde	Horn	Host	Hour
List Price for Steam Boilers Maximum Working Pres- sure of 15 Pounds, Also for Water Boilers. Cast- ings and Tools Included	\$935	\$1000	\$1075	\$1210	\$1290	\$1370	\$1530	\$1660	\$1790	\$2070	\$2280	\$2820	\$3040	\$3475	\$3775	\$4200	\$4500
Extra for Steam Trimmings	\$40	\$40	\$45	\$45	\$45	\$55	\$90	\$90	\$95	\$100	\$115	\$135	\$155	\$165	\$165	\$165	\$200
Approx. Weight, Pounds	5000	5600	6100	6900	7500	8100	9200	9900	10600	12600	14000	16500	18100	20500	22200	24000	26000

*Kewanee Portable Type K Boilers are constructed in  
exactly the same manner as the larger Kewanee Fire-box  
Boilers and will heat all the radiation given in their ratings.*

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

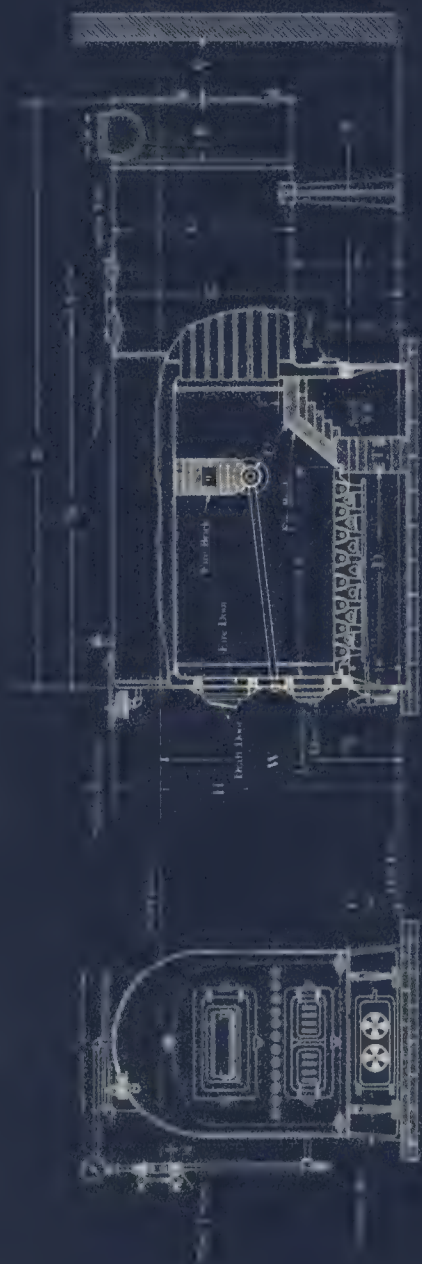
## Specifications KEWANEE Portable Smokeless Boilers Type K

Number of Boiler	104K	105K	106K	107K	108K	109K	110K	111K	112K	113K	114K	115K	116K	117K	118K	119K	120K
Diameter of Boiler . . . in.	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length Boiler Over-all ft. in.	9-11	11-5	12-11	11-2	12-8	14-2	13-8	15-2	16-8	17-1	19-7	19-4	21-10	19-10	21-10	19-10	21-10
Width of Fire-box . . in.	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box . . in.	45	51	57	54	60	66	66	72	78	78	84	90	96	90	96	96	102
Heating Surface . . sq. ft.	157	185	220	234	271	308	338	381	425	500	590	677	787	879	987	1090	1230
Area of Upper Grate sq. ft.	5.9	7.2	8.4	8.6	10.1	11.4	11.8	13.2	15.0	17.1	19.1	21.1	23.3	23.5	25.9	28.5	31.3
Diam. of Breeching . . in.	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
Diam. of Stack . . . in.	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Minimum Hg't of Stack ft.	40	40	40	45	45	45	45	50	50	55	55	55	55	65	65	65	65
Diameter of Breeching, Two Boilers . . . in.	26	26	28	28	30	32	32	34	34	36	38	42	42	44	45	48	50
Diameter of Stack, Two Boilers . . . in.	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Minimum Height of Stack, Two Boilers . ft.	50	50	50	55	55	55	55	55	55	65	65	65	70	70	75	75	75
Size of Steam Opening . in.	5	6	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return . . . in.	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve . in.	2	2½	2½	2½	2½	3	3½	3½	4	4	4½	4½	Two 3½	Two 4	Two 4	Two 4	Two 4½
Height of Water-line . in.	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Height from Floor to Top of Boiler . . . in.	65	65	65	71	71	71	77	77	77	83	83	93	93	99	99	105	105

For setting plans and other measurements see pages 41 and 43.

*Every Kewanee Boiler made is built of Steel.*





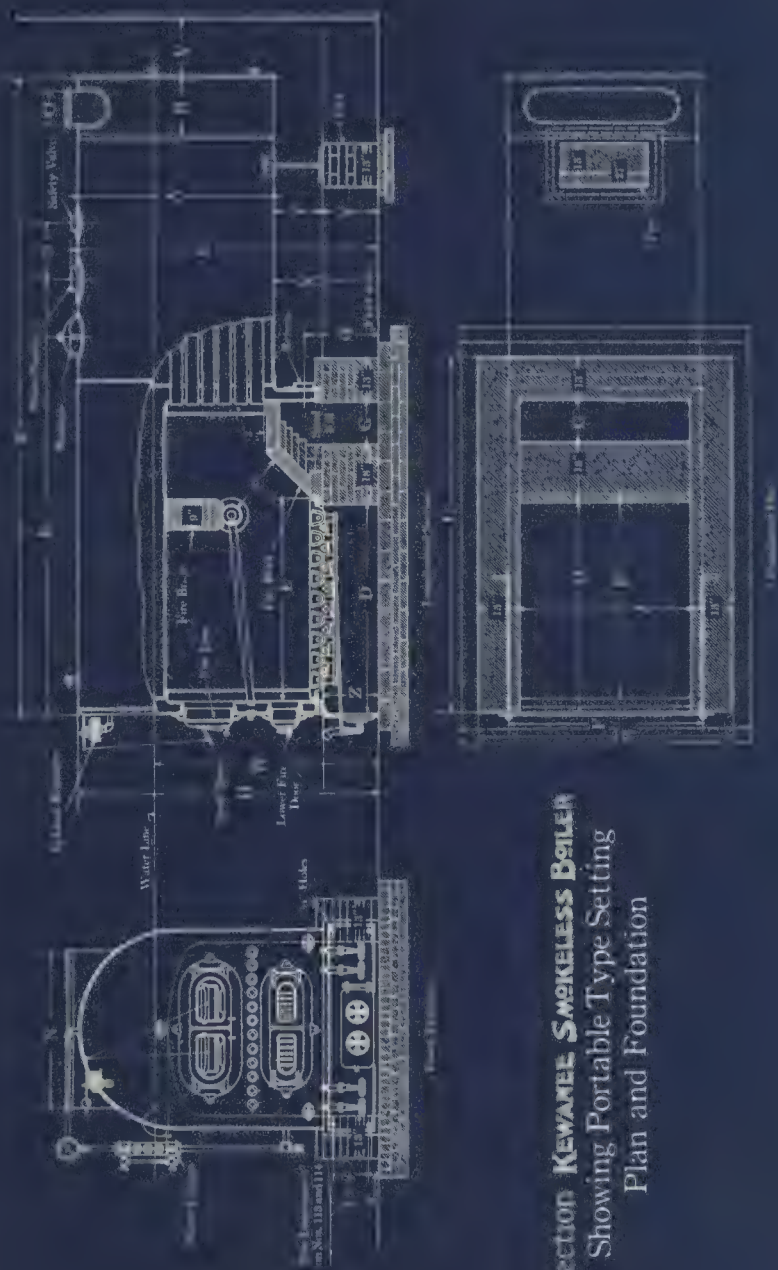
Section KEWANEE SMOKELESS BOILER  
Showing Portable Type Setting  
Plan and Foundation

# Measurements Setting Plans Keweenaw Portable Smokeless Boilers Type K—Cast-Iron Base

Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules

Number of Boiler	104K	106K	107K	108K	109K	110K	111K	112K
A—Diameter of Boiler	36	48	60	72	84	96	108	120
B—Length of Boiler	114	156	198	240	282	324	366	408
C—Header to Bridge Wall	12	16	20	24	28	32	36	40
D—Length of Ash-pit	32	48	64	80	96	112	128	144
E—Length of Grate	32	48	64	80	96	112	128	144
F—Height of Return	18	24	30	36	42	48	54	60
G—Height of Supply	60	84	108	132	156	180	204	228
H—Height of Boiler	108	144	180	216	252	288	324	360
J—Width of Ash-pit	36	48	60	72	84	96	108	120
K—Location of Steam Supply	12	16	20	24	28	32	36	40
L—Length of Ash-pit Base	32	48	64	80	96	112	128	144
M—Width of Ash-pit Base	36	48	60	72	84	96	108	120
N—Length of Breaching Connection	12	16	20	24	28	32	36	40
R—Depth of Smoke Box	12	16	20	24	28	32	36	40
S—Location of Safety Valve	12	16	20	24	28	32	36	40
W—Height of Water-line	12	16	20	24	28	32	36	40
T—Thickness of Bridge Wall	12	16	20	24	28	32	36	40
Size of Steam Supply	12	16	20	24	28	32	36	40
Size of Return	12	16	20	24	28	32	36	40
Size of Safety Valve	12	16	20	24	28	32	36	40
Number of Fire Brick	12	16	20	24	28	32	36	40
Diameter of Breaching	12	16	20	24	28	32	36	40
Diameter of Stack	12	16	20	24	28	32	36	40
Minimum Height of Stack	12	16	20	24	28	32	36	40
Diameter Breaching, Two Boilers	12	16	20	24	28	32	36	40
Diameter Stack, Two Boilers	12	16	20	24	28	32	36	40
Minimum Height Stack, Two Boilers	12	16	20	24	28	32	36	40
Minimum Space Required at Rear of Outside Surface to be Covered	12	16	20	24	28	32	36	40





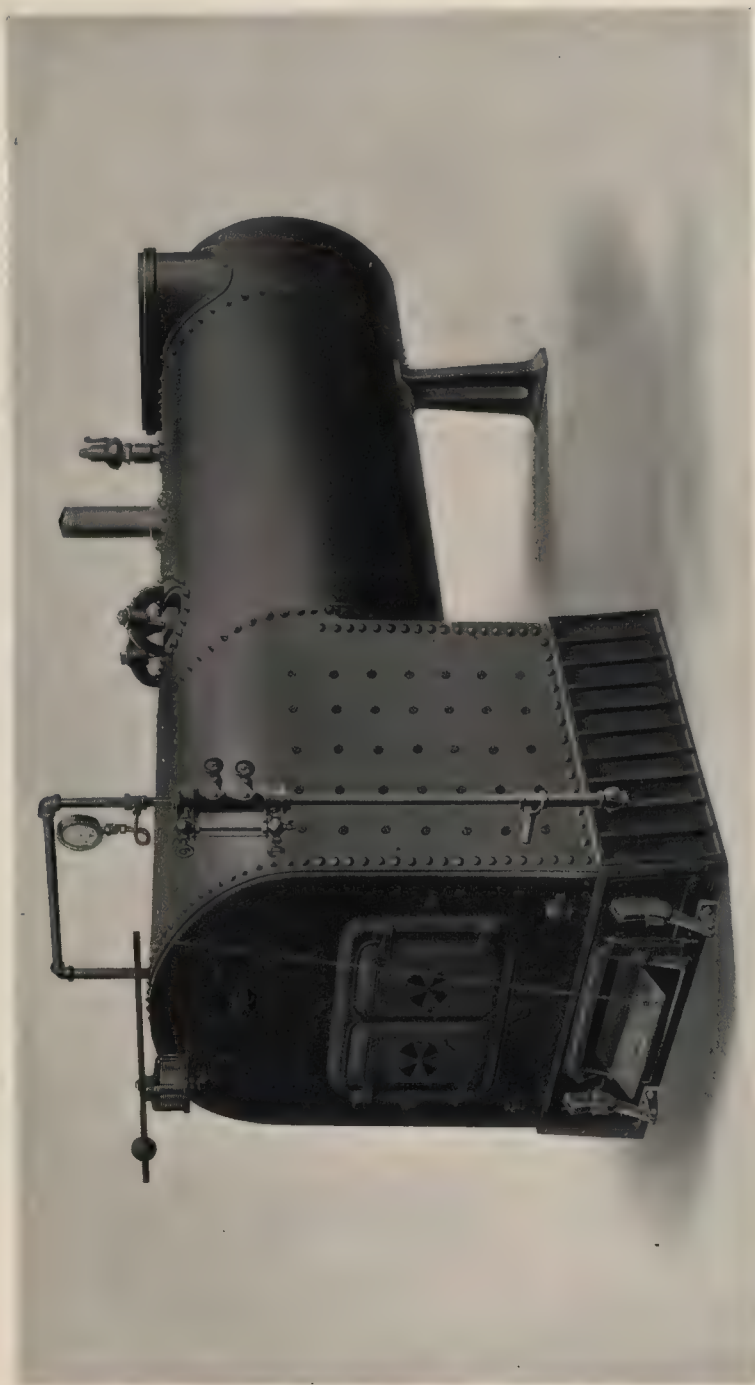
Section **KEWANEE SMOKELESS BOILER**  
 Showing Portable Type Setting  
 Plan and Foundation

# Measurements Setting Plans Kewanee Portable Smokeless Boilers Type K—Brick Base

Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules

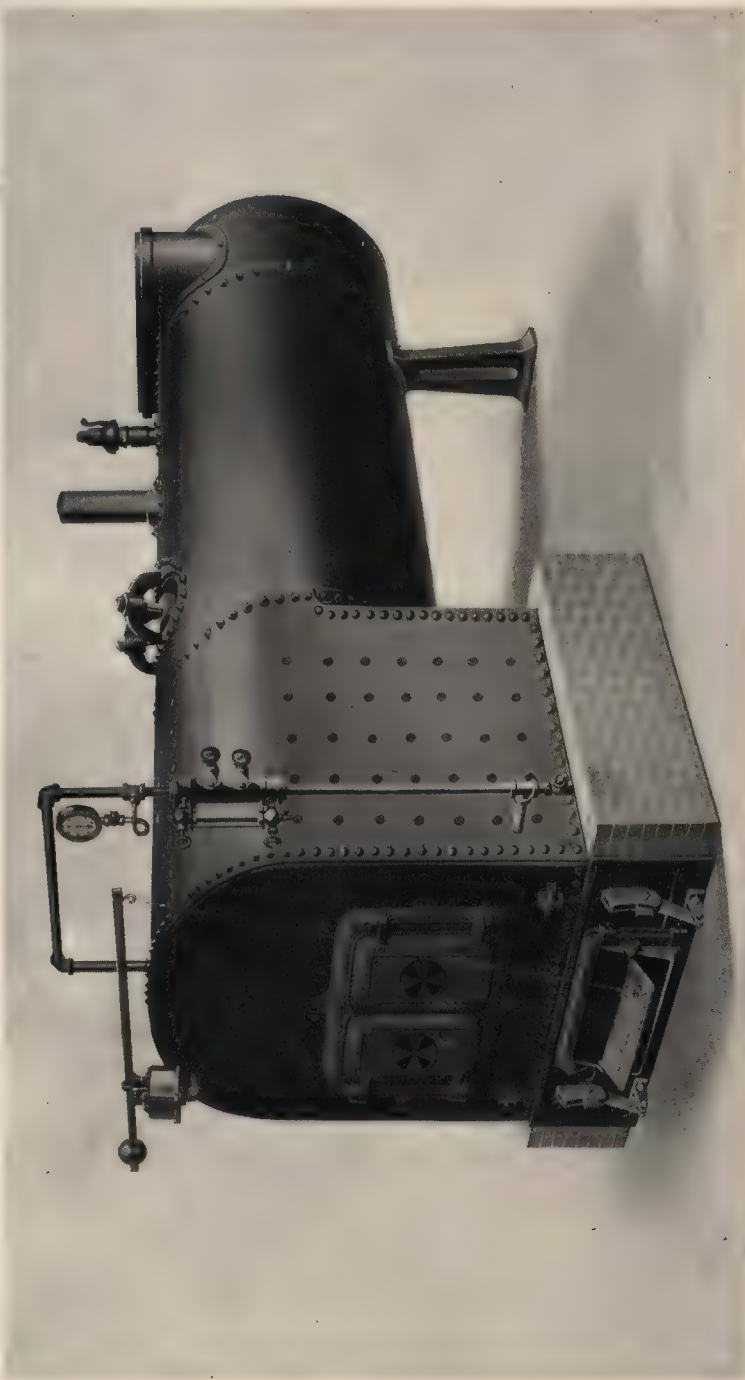
Number of Boiler	113K	114K	115K	116K	117K	118K	119K	120K
A—Diameter of Boiler	54	54	54	54	54	54	54	54
B—Length of Boiler	17-1	17-2	17-1	17-1	17-1	17-1	17-1	17-1
C—Header to Bridge Wall	13	13	13	13	13	13	13	13
D—Length of Ash-pit	1	1	1	1	1	1	1	1
E—Length of Grate	1	1	1	1	1	1	1	1
F—Center to Center Bolts in Ash-pit Front	1	1	1	1	1	1	1	1
G—Bridge Wall to Rear Wall	1	1	1	1	1	1	1	1
H—Height of Boiler	1	1	1	1	1	1	1	1
J—Width of Ash-pit	1	1	1	1	1	1	1	1
K—Location of Steam Supply	1	1	1	1	1	1	1	1
L—Length of Foundation	1	1	1	1	1	1	1	1
M—Width of Foundation	1	1	1	1	1	1	1	1
N—Length of Breaching Connection	1	1	1	1	1	1	1	1
O—Width of Breaching Connection	1	1	1	1	1	1	1	1
P—Height of Return	1	1	1	1	1	1	1	1
R—Depth of Smoke Box	1	1	1	1	1	1	1	1
S—Location of Safety Valve	1	1	1	1	1	1	1	1
T—Height of Back Stand	1	1	1	1	1	1	1	1
U—Height of Steam Supply	1	1	1	1	1	1	1	1
V—Minimum Space Required at Rear	1	1	1	1	1	1	1	1
W—Height of Water-line	1	1	1	1	1	1	1	1
X—Floor Line to Bottom of Cylinder	1	1	1	1	1	1	1	1
Y—Height of Rear Pier	1	1	1	1	1	1	1	1
Z—Height of Ash-pit	1	1	1	1	1	1	1	1
Size of Steam Supply	1	1	1	1	1	1	1	1
Size of Safety Valve	1	1	1	1	1	1	1	1
Size of Return	1	1	1	1	1	1	1	1
Number of Common Brick	1	1	1	1	1	1	1	1
Number of Fire Brick	1	1	1	1	1	1	1	1
Diameter of Stack	1	1	1	1	1	1	1	1
Minimum Height	1	1	1	1	1	1	1	1
Diameter of Breaching, Two Boilers	1	1	1	1	1	1	1	1
Diameter of Stack, Two Boilers	1	1	1	1	1	1	1	1
Minimum Height Stack, Two Boilers	1	1	1	1	1	1	1	1
Outside Surface to be Covered	1	1	1	1	1	1	1	1
Diameter Breaching, One Boiler	1	1	1	1	1	1	1	1





12K and smaller

**Kewanee** Portable Straight-Draft  
Type K Boiler—Cast-Iron Base



**Kewanee** Portable Straight-Draft Type K Boiler—Brick Base

13K and larger



# Price List **Kewanee** Portable Boiler Type K—Straight Draft These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	17K	18K	19K	20K
Capacity, Steam sq. ft.	850	1000	1150	1300	1600	1900	2450	2850	3300	3800	4300	5200	6200	7100	8200	9500	10400	11400	13300
Capacity, Water sq. ft.	1400	1600	1900	2200	2600	3100	4100	4700	5500	6300	7000	8600	10100	11800	13700	15700	17300	18800	21900
Code, Steam Boiler.	Dort	Dote	Dock	Deer	Dog	Doge	Doit	Dole	Doll	Dolly	Dolar	Dome	Doze	Doon	Door	Dope	Dost	Dove	Down
Code, Water Boiler.	Drug	Drum	Drag	Dragon	Drain	Drake	Dram	Drank	Drape	Draw	Dray	Dream	Drear	Dress	Droll	Drip	Drive	Drone	Drop
List Price for Steam Boilers, Maximum Working Pressure of 15 Pounds; Also for Water Boilers, Castings and Tools Included . . . . .	\$550	\$600	\$665	\$725	\$790	\$850	\$1050	\$1135	\$1215	\$1320	\$1425	\$1705	\$1895	\$2355	\$2580	\$2875	\$3225	\$3550	\$3850
Extra for Steam Trim.	\$35	\$35	\$35	\$35	\$35	\$40	\$40	\$50	\$50	\$80	\$80	\$95	\$95	\$125	\$125	\$150	\$160	\$160	\$160
Approx. Weight, Lbs.	2900	3200	3500	3900	4400	4900	6300	6900	7600	8300	9000	11100	12400	15000	16600	17900	19200	21900	23700

*Kewanee Steel Fire-box Boilers are recognized in all parts of this country and Canada as the most dependable heating boilers.*

# Specifications **KEWANEE** Portable Boiler Type K—Straight Draft

Number of Boiler	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	17K	18K	19K	20K
Diameter of Boiler	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
Length of Boiler Over-all	7-10	8-10	9-10	8-10	10-4	11-10	11-4	12-10	11-10	13-4	14-10	15-4	17-10	17-0	19-6	17-6	19-6	17-6	19-6
Width of Fire-box	24	24	24	30	30	30	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box	26	32	38	32	38	44	44	50	44	50	56	62	62	62	68	62	68	68	74
Height of Fire-box	35	35	35	38	38	38	41	41	44	44	44	49	49	54	54	59	59	64	64
Heating Surface	83	93	104	139	164	190	241	275	298	338	378	447	537	603	708	791	896	992	1129
Area of Grate	4.4	5.4	6.4	6.8	8.0	9.3	11.1	12.6	12.9	14.7	16.5	18.8	20.8	22.9	25.1	25.5	28.0	30.8	33.5
Diameter of Breeching	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack	12	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Minimum Height of Stack	35	35	35	35	35	40	40	40	40	45	45	45	45	50	50	55	55	55	55
Diam. of Breeching, Two Boilers	18	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diam. of Stack, Two Boilers	18	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Minimum Height of Stack, Two Boilers	40	40	40	40	40	40	45	45	45	45	45	50	55	55	65	65	65	65	65
Size of Steam Opening	4	4	5	5	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return	2½	2½	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve	1½	2	2	2	2	2½	2½	3	3	3½	3½	4	4	4½	4½	3½	Two	Two	Two
Height of Water-line	52	52	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
H'g't from Floor to Top of Boiler	59	59	59	65	65	65	71	71	77	77	77	83	83	93	93	99	99	105	105

For setting plans and other measurements see pages 49 and 51.

*Many of the first Kewanee Boilers made are still on the job—35 years old.*





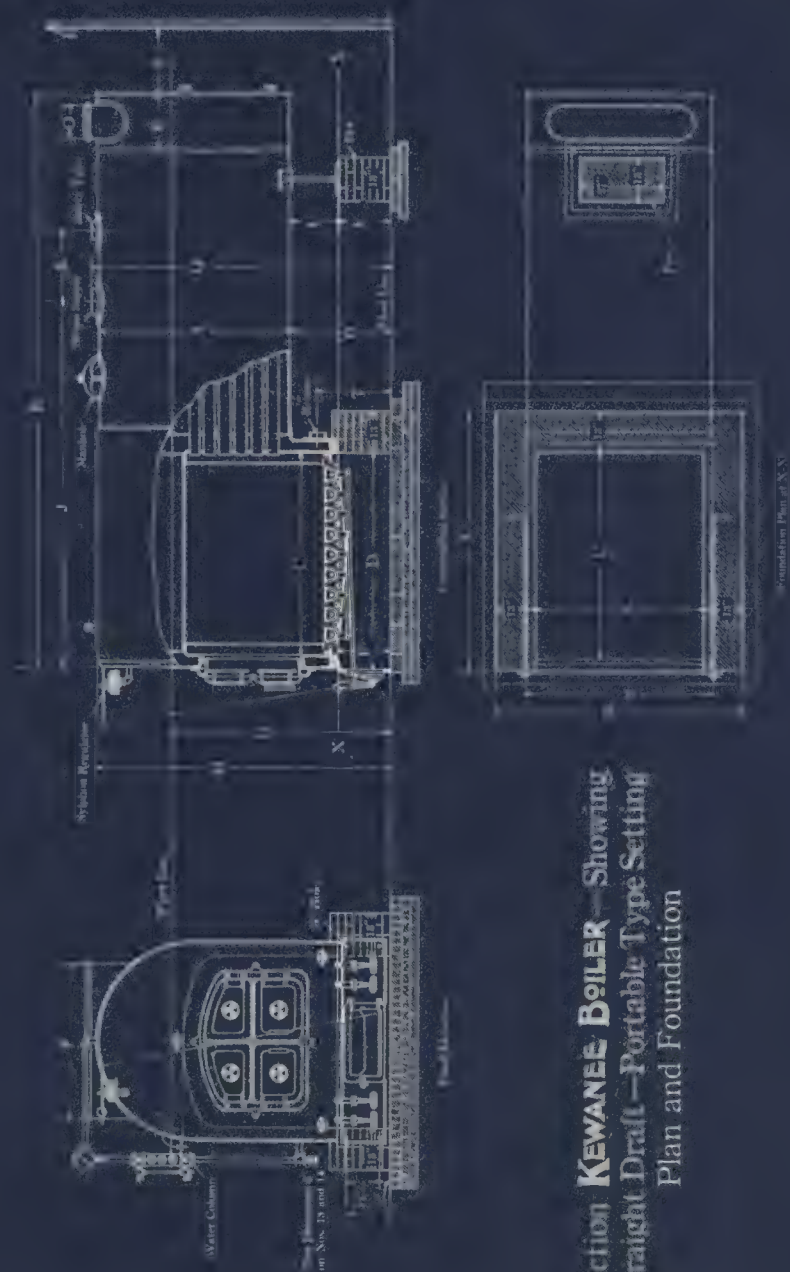
Section **KEWANEE BOILER** — Showing  
 Straight Draft — Portable Type Setting  
 Plan and Foundation

# Setting Plans **Kewanee** Portable Boiler Type K—Straight Draft—Cast-Iron Base

Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules

Number of Boiler	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K
A—Diameter of Boiler	30 in.	30 8-10	30 9-10	30 9-10	30 9-10	30 11-10	42 11-4	42 11-10	48 11-10	48 11-4	48 11-10
B—Length of Boiler	26 ft.	32 ft.	38 ft.	38 ft.	38 ft.	44 ft.	51 ft.	51 ft.	57 ft.	57 ft.	57 ft.
C—Length of Fire-box	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.
D—Length of Ash-pit	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.
E—Width of Ash-pit	52 in.	52 in.	52 in.	52 in.	52 in.	52 in.	52 in.	52 in.	52 in.	52 in.	52 in.
F—Height of Return	59 in.	59 in.	59 in.	59 in.	59 in.	59 in.	59 in.	59 in.	59 in.	59 in.	59 in.
G—Height of Water-line	4-0 ft.	4-8 ft.	5-6 ft.	5-11 ft.	5-11 ft.	6-11 ft.	6-8 ft.	7-2 ft.	7-10 ft.	7-10 ft.	8-6 ft.
H—Height of Boiler	12 in.	15 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.
J—Location of Steam Supply	34 in.	34 in.	34 in.	34 in.	34 in.	34 in.	34 in.	34 in.	34 in.	34 in.	34 in.
K—Location of Safety Valve	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.
L—Length of Ash-pit Base	8 in.	8 in.	8 in.	8 in.	8 in.	8 in.	8 in.	8 in.	8 in.	8 in.	8 in.
M—Width of Ash-pit Base	61 in.	61 in.	61 in.	61 in.	61 in.	61 in.	61 in.	61 in.	61 in.	61 in.	61 in.
N—Depth of Rear Smoke Box	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.
O—Length of Breaching Connection	1 1/2 in.	2 in.	2 in.	2 in.	2 in.	2 1/2 in.	3 in.	3 in.	3 3/4 in.	3 3/4 in.	3 3/4 in.
P—Width of Breaching Connection	2 1/2 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.
Q—Height of Steam Supply	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.
R—Minimum Space Required at Rear	68 sq. ft.	77 sq. ft.	85 sq. ft.	91 sq. ft.	106 sq. ft.	120 sq. ft.	133 sq. ft.	149 sq. ft.	157 sq. ft.	177 sq. ft.	197 sq. ft.
Size of Steam Supply	1 1/2 in.	2 in.	2 in.	2 in.	2 in.	2 1/2 in.	3 in.	3 in.	3 3/4 in.	3 3/4 in.	3 3/4 in.
Size of Safety Valve	2 1/2 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.
Size of Return	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.	35 in.
Diameter of Breaching	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.
Diameter of Stack	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.
Minimum Height of Stack	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.
Diameter Breaching, Two Boilers	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.
Diameter Stack, Two Boilers	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.	12 in.
Minimum Height Stack, Two Boilers	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.
Outside Surface to be Covered	68 sq. ft.	77 sq. ft.	85 sq. ft.	91 sq. ft.	106 sq. ft.	120 sq. ft.	133 sq. ft.	149 sq. ft.	157 sq. ft.	177 sq. ft.	197 sq. ft.





# Setting Plans **Kewanee** Portable Boiler Type K—Straight Draft—Brick Base

Built in accordance with American Society  
Mechanical Engineers Code of Boiler Rules

Number of Boiler	13K	14K	15K	16K	17K	18K	19K	20K
A—Diameter of Boiler	34	34	34	34	34	34	34	34
B—Length of Boiler	100	100	100	100	100	100	100	100
C—Length of Grate	77-9	77-9	77-9	77-9	77-9	77-9	77-9	77-9
D—Length of Ash-pit	10	10	10	10	10	10	10	10
E—Width of Ash-pit	10	10	10	10	10	10	10	10
F—Height of Ash-pit	10	10	10	10	10	10	10	10
G—Height of Water-line	10	10	10	10	10	10	10	10
H—Height of Boiler	10	10	10	10	10	10	10	10
J—Location of Steam Supply	10	10	10	10	10	10	10	10
K—Location of Safety Valve	10	10	10	10	10	10	10	10
L—Length of Foundation	10	10	10	10	10	10	10	10
M—Width of Foundation	10	10	10	10	10	10	10	10
N—Center to Center Boilers in Ash-pit Front	10	10	10	10	10	10	10	10
O—Width of Breeching Connection	10	10	10	10	10	10	10	10
P—Length of Breeching Connection	10	10	10	10	10	10	10	10
Q—Height of Steam Supply	10	10	10	10	10	10	10	10
R—Depth of Smoke Box	10	10	10	10	10	10	10	10
S—Minimum Space Required at Rear	10	10	10	10	10	10	10	10
T—Height of Return	10	10	10	10	10	10	10	10
U—Height of Back Stand	10	10	10	10	10	10	10	10
V—Height of Rear Pier	10	10	10	10	10	10	10	10
W—Floor Line to Bottom of Cylinder	10	10	10	10	10	10	10	10
Size of Steam Supply	10	10	10	10	10	10	10	10
Size of Safety Valve	10	10	10	10	10	10	10	10
Size of Return	10	10	10	10	10	10	10	10
Number of Common Brick	10	10	10	10	10	10	10	10
Diameter of Breeching	10	10	10	10	10	10	10	10
Diameter of Stack	10	10	10	10	10	10	10	10
Minimum Height of Stack	10	10	10	10	10	10	10	10
Diameter Breeching, Two Boilers	10	10	10	10	10	10	10	10
Diameter Stack, Two Boilers	10	10	10	10	10	10	10	10
Minimum Height Stack, Two Boilers	10	10	10	10	10	10	10	10
Outside Surface to be Covered	10	10	10	10	10	10	10	10





